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PROGRAM.

The JOURNAL treats of the various branches of archaeology and art history—Oriental, Classic, Christian and Early Renaissance. Its original articles are predominantly classic on account of the fact that it has become the official organ of the ARCHEOLOGICAL INSTITUTE OF AMERICA and of the AMERICAN SCHOOL OF CLASSICAL STUDIES AT ATHENS, and the JOURNAL will aim to further the interests for which the Institute and the School were founded. In it are published the reports on all the excavations undertaken in Greece and elsewhere by the Institute and the School, and the studies carried on independently by the Directors and members of the School. By decision of the Council of the Archaeological Institute the JOURNAL has been distributed during 1893 to all members of the Institute, and the same distribution will be made during 1894.

Beside articles the JOURNAL contains CORRESPONDENCE, BOOK NOTICES AND REVIEWS AND ARCHEOLOGICAL NEWS. It is its aim to give notices of all important publications recently issued, sometimes written expressly for the JOURNAL, sometimes summarized from authorized reviews in other publications.

The department in which the JOURNAL stands quite alone is the RECORD OF DISCOVERIES AND INVESTIGATIONS. While all periods and all countries are represented, special attention is given to Egypt, Greece and Italy. Not merely are the results of actual excavations chronicled, but everything in the way of novel views and investigations as expressed in books and periodicals is noted. In order to secure thoroughness, more than one hundred periodicals are consulted and utilized. By these various methods, all important work is concentrated and made accessible in a convenient but scholarly form, equally suited to the specialist and to the general reader.

It has been the aim of the editors that the JOURNAL, besides giving a survey of the whole field of archaeology, should be international in character. Its success in this attempt is shown by the many noted European writers whose contributions have appeared in its pages during the past eight years. Such are: MM. Babelon, de Marsy, Maspero, Menant, Müntz and Reinach for France: MM. Dörpfeld, Furtwängler, Hirschfeld, Michaelis, Mommsen, Schreiber and Wolters for Germany; MM. Gardner, Murray, Pinches and Ramsay for England, etc.

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Vol. I has lately been out of print, but will be reprinted shortly in view of the increasing demand for back volumes; all who desire to complete their sets should send in their application.

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AMERICAN JOURNAL OF ARCHÆOLOGY.

Vol. VIII.

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No. I.

THE TEMPLE ON THE ACROPOLIS BURNT BY THE PERSIANS.

The excavations conducted by the Greek Archæological Society at Athens from 1883 to 1889 have laid bare the entire surface of the Acropolis, and shed an unexpected light upon the early history of Attic art. Many questions which once seemed unanswerable are now definitively answered, and, on the other hand, many new questions have been raised. When, in 1886, Kabbadias and Dörpfeld unearthed the foundations of a great temple close by the southern side of the Erechtheion, all questions concerning the exact site, the ground-plan, and the elevation of the great temple of Athena of the sixth century B. C. were decided once for all.¹ On these points little or nothing can be added to what has been done, and Dörpfeld's results must be accepted as final and certain.

The history of the temple presents, however, several questions, some of which seem still undecided. When was the temple built? Was it all built at one time? Was it restored after its destruction by the Persians? Did it continue in use after the erection of the Parthenon? Was it in existence in the days of Pausanias? Did Pausanias mention it in his description of the Acropolis? Conflicting answers to nearly all of these questions have appeared since the discovery of the temple. Only the first

¹ DÖRPFELD, Preliminary Report, *Mitth. Ath.*, x, p. 275; Plans and restorations, *Antike Denkmäler*, i, pls. 1, 2; Description and discussion, *Mitth. Ath.*, xi, p. 337.

question has received one and the same answer from all. The material and the technical execution of the peripteros, entablature, etc., of the temple show conclusively that this part, at least, was erected in the time of Peisistratos.² We may therefore accept so much without further discussion. Of the walls of the cella and opisthodomos nothing remains, but the foundations of this part are made of the hard blue limestone of the Acropolis, while the foundations of the outer part are of reddish-gray limestone from the Peiraieus. The foundations of the cella are also less accurately laid than those of the peripteros. These differences lead Dörpfeld to assume that the naos itself (the building contained within the peristyle) existed before the time of Peisistratos, although he does not deny the possibility that builders of one date may have employed different materials and methods, as convenience or economy dictated.³ Positive proof is not to be hoped for in the absence of the upper walls of the naos, but probability is in favor of Dörpfeld's assumption, that the naos is older than the peristyle, etc.⁴ It is further certain, that this temple was called in the sixth century B. C. τὸ Ἑκατόμπεδον (see below p. 9). So far, we have the most positive evidence—that of the remains of the temple itself and the inscription giving its name. The evidence regarding the subsequent history of the temple is not so simple.

Dörpfeld (*Mitth. Ath.*, XII, p. 25 ff.) arrives at the following conclusions: (1) The temple was restored after the departure of the Persians; (2) it was injured by fire B. C. 406; (3) it was repaired and continued in use; (4) it was seen and described by Pausanias I. 24. 3 in a lost passage. Let us take up these points in inverse order. The passage of Pausanias reads in our texts:—*Λέλεκται δέ μοι καὶ πρότερον* (I. 1), *ὡς Ἀθηναῖοις περισσώτερόν τι ἢ τοῖς ἄλλοις ἐς τὰ θεῖά ἐστι σπουδῆς· πρώτοι μὲν γὰρ Ἀθηναῖοι ἐπωνόμασαν Ἐργάνην, πρώτοι δ' ἀκώλους Ἑρμᾶς . . . ὁμοῦ δέ σφισιν ἐν τῷ ναῷ Σπουδαίων δαίμων ἐστίν.* Dörpfeld marks a lacuna between Ἑρμᾶς and ὁμοῦ, as do those editors who do not supply an

² DÖRPFELD, *Mitth. Ath.*, XI, p. 349.

³ *Mitth. Ath.*, XI, p. 345.

⁴ On the other hand, see PETERSEN, *Mitth. Ath.*, XII, p. 66.

emendation. Dörpfeld, however, thinks the gap is far greater than has been supposed, including certainly the mention and probably the full description of the temple under discussion. His reasons are in substance about as follows: (1) Pausanias has reached a point in his periegesis where he would naturally mention this temple, because he is standing beside it,⁵ and (2) the phrase *ομοῦ δέ σφισιν ἐν τῷ ναῷ Σπουδαίων δαίμων ἐστίν* implies that a temple has just been mentioned. These are, at least, the main arguments, those deduced from the passage following the description of the Erechtheion being merely accessory.

Now, if Pausanias followed precisely the route laid down for him by Dörpfeld (*i. e.*, if he described the two rows of statues between the Propylaea and the eastern front of the Parthenon, taking first the southern and then the northern row), he would come to stand where Dörpfeld suggests. If, however, he followed some other order (*e. g.*, that suggested by Wernicke, *Mith.*, XII, p. 187), he would not be where Dörpfeld thinks. Pausanias does not say that the statues he mentions are set up in two rows.⁶ It may be that the Acropolis was so thickly peopled with statues that each side of the path was bordered with a double or triple row, or that the statues were not arranged in rows at all, and that Pausanias merely picks out from his memory (or his Polemon) a few noticeable figures with only general reference to their relative positions. Be this as it may, the assumption that Pausanias, when he mentions the Σπουδαίων (or σπουδαιών?) δαίμων, is standing, or imagines that he stands, beside the old temple rests upon very slight foundations.

Whether Pausanias, in what he says of Ergane, the legless Hermæ, *etc.*, is, as Wernicke (*Mith.*, XII, p. 185) would have it, merely inserting a bit of misunderstood learning, is of little moment. I am not one of those who picture to themselves

⁵ DÖRPFELD'S arguments for the continued existence of the temple, without which his theory that Pausanias mentioned it must of course fall to the ground, will be discussed below. It seemed to me advisable to discuss the Pausanias question first, because, if he mentioned the temple, it must have existed, if not to his time, at least to that of Polemon or of his other (unknown) authority.

⁶ The most that can be deduced from the use of *πέραν* (c. 24. 1) is, that the statues were on both sides of the path.

Pausanias going about copying inscriptions, asking questions, and forming his own judgments, referring only occasionally to books when he wished to refresh his memory or look up some matter of history. The labors of Kalkmann, Wilamowitz, and others have shown conclusively, that a large part of Pausanias' periegesis is adopted from the works of previous writers, and adopted in some cases with little care by a man of no very striking intellectual ability. It is convenient to speak as if Pausanias visited all the places and saw all the things he describes, but it is certain that he does not mention all he must in that case have seen, and perhaps possible that he describes things he never can have seen. Whether Pausanias travelled about Greece and then wrote his description with the aid (largely employed) of previous works, or wrote it without travelling, makes little difference except when it is important to know the exact topographical order of objects mentioned. In any case, however, his accuracy in detail is hardly to be accepted without question, especially in his description of the Acropolis, where he has to try his prentice hand upon a material far too great for him. A useless bit of lore stupidly applied may not be an impossibility for Pausanias, but, however low our opinion of his intellect may be, he is the best we have,⁷ and must be treated accordingly. The passage about Ergane, *etc.*, must not be simply cast aside as misunderstood lore, but neither should it be enriched by inserting the description of a temple together with the state-treasury. The passage must be explained without doing violence to the Ms. tradition. That this is possible has lately been shown by A. W. Verrall.⁸ He says: 'What Pausanias actually says is this —: "The Athenians are specially distinguished by religious zeal. The name of Ergane was first given by them, and the name Hermæ; and in the temple along with them is a Good Fortune of the Zealous"—words which are quite as apt for the meaning above explained (i. e., a note on the piety of the Athenians) as those of the author often are in such cases.'

⁷ I think it is F. G. WELCKER to whom the saying is attributed: *Pausanias ist ein Schaf, aber ein Schaf mit goldenem Vliesse.*

⁸ HARRISON and VERRALL, *Mythology and Monuments of Athens*, p. 610. I am not sure that a colorless verb has not fallen out after 'Ερμᾶς, though the assumption of a gap is not strictly necessary, as Prof. Verrall shows.

Whether we read *Σπουδαίων δαίμων* or *σπουδαιῶν Δαίμων* is, for our purposes immaterial. In either case, Verrall is right in calling attention to the connection between *ἐς τὰ θεῖα σπονδή* and the *δαίμων Σπουδαίων* (*σπουδαιῶν*), a connection which is now very striking, but which is utterly lost by inserting the description of a temple. At this point, then, the temple is not mentioned by Pausanias.

But, if not at this point, perhaps elsewhere, for this also has been tried. Miss Harrison⁹ thinks the temple in question is mentioned by Pausanias, c. 27.1. He has been describing the Erechtheion, has just mentioned the old *ἄγαλμα* and the lamp of Kallimachos, which were certainly in the Erechtheion,¹⁰ and continues: *κεῖται δὲ ἐν τῷ ναῷ τῆς πολιάδος Ἑρμῆς ξύλου, κτέ.*, giving a list of anathemata, followed by the story of the miraculous growth of the sacred olive after its destruction by the Persians, and passing to the description of the Pandroseion with the words, *τῷ ναῷ δὲ τῆς Ἀθηνᾶς Πανδρόσου ναὸς συνεχῆς ἐστὶ*. Miss Harrison thinks that, since Athena is Polias, the *ναὸς τῆς πολιάδος* and the *ναὸς τῆς Ἀθηνᾶς* are one and the same, an opinion in which I heartily concur.¹¹ It remains to be decided whether this temple is the newly discovered old temple or the eastern cella of the Erechtheion. The passages cited by Jahn-Michaelis¹² show that the old *ἄγαλμα* bore the special appellation *πολιάς*, and we know that the old *ἄγαλμα* was in the Erechtheion. That does not, to be sure, prove that the Erechtheion was also called, in whole or in part *ναὸς τῆς πολιάδος* (or *τῆς Ἀθηνᾶς*), but it awakens suspicion to read of an ancient *ἄγαλμα* which we know was called Polias, and which was perhaps *the Polias κατ' ἐξοχήν*, and immediately after, with no introduction or explanation, to read of a temple of Polias in which that *ἄγαλμα* is not. Nothing is known of a statue in the newly discovered old temple.¹³ In the Erechtheion there

⁹ *Myth. and Mon. of Athens*, p. 508 ff.

¹⁰ *CIA.*, I. 322, § 1 with the passage of Pausanias.

¹¹ Dörpfeld (*Mitth.*, XII, p. 58 f.) thinks the *ναὸς τῆς πολιάδος* is the eastern cella of the Erechtheion, the *ναὸς τῆς Ἀθηνᾶς* the newly discovered old temple, but is opposed by Petersen (see below) and Miss Harrison.

¹² *Pausanias, Deser. Arcis Athen.*, c. 26.6.35.

¹³ For Lolling's opposing opinion, see below.

was, then, a very ancient statue called Polias; in the temple beside the Erechtheion was no statue about which anything is known, and yet, according to Miss Harrison, the new found "old temple" is the ναὸς τῆς πολιᾶδος, while the πολιὰς in bodily form dwells next door. That seems to me an untenable position. Again, the dog mentioned by Philochoros¹⁴ which went into the temple of Polias, and, passing into the Pandroseion, lay down (δύσα εἰς τὸ πανδρόσειον . . . κατέκειτο), can hardly have gone into the temple alongside of the Erechtheion, because there was no means of passing from the cella of that temple into the opisthodomos, and in order to reach the Pandroseion the dog would have had to come out from the temple by the door by which he entered it. The fact that the dog went into this temple could have nothing to do with his progress into the Pandroseion, whereas from the eastern cella of the Erechtheion he could very well pass down through the lower apartments and reach the Pandroseion. It seems after all that when Pausanias says ναὸς τῆς πολιᾶδος, he means the eastern cella of the Erechtheion. But the ναὸς τῆς Ἀθηνᾶς is also the Erechtheion, for E. Petersen has already observed (*Mith.*, XII, p. 63) that, if the temple of Pandrosos was συνεχῆς τῷ ναῷ τῆς Ἀθηνᾶς, the temple of Athena must be identified with the Erechtheion, not with the temple beside it, for the reason that the temple of Pandrosos, situated west of the Erechtheion, cannot be συνεχῆς ("adjoining" in the strict sense of the word) to the old temple, which stood upon the higher level to the south. If Pausanias had wished to pass from the Erechtheion to the temple of Athena standing (?) beside it, the opening words of c. 26.6 (Ἰερὰ μὲν τῆς Ἀθηνᾶς ἐστὶν ἢ τε ἄλλη πόλις κτέ.) would have formed the best possible transition; but those words introduce the mention of the ancient ἄγαλμα which was in the Erechtheion. That Pausanias then, without any warning, jumps into another temple of Athena, is something of which even his detractors would hardly accuse him, and I hope I have shown that he is innocent of that offence.

Pausanias, then, does not mention the temple under discussion.

Xenophon (*Hell.*, I. 6) says that, in the year 406 B. C., ὁ παλαιὸς ναὸς τῆς Ἀθηνᾶς ἐνεπρήσθη. Until recently this statement was

¹⁴ Fig. 146, JAHN-MICH., *Paus. Diacr. Arcis. Ath.*, c. 27. 2. 8.

supposed to apply to the Erechtheion, called "ancient temple" because it took the place of the original temple of Athena, from which the great temple (the Parthenon) was to be distinguished. Of course, the new *building* of the Erechtheion was not properly entitled to the epithet "ancient," but as a *temple* it could be called ancient, being regarded as the original temple in renewed form. If, however, the newly discovered temple was in existence alongside the Erechtheion in 406, the expression *παλαιὸς ναός* applied to the Erechtheion would be confusing, for the other temple was a much older *building* than the Erechtheion. If the temple discovered in 1886 existed in 406 B. C., it would be natural to suppose that it was referred to by Xenophon as *ὁ παλαιὸς ναός*. But this passage is not enough to prove that the temple existed in 406 B. C.

Demosthenes (xxiv, 136) speaks of a fire in the opisthodomos. This is taken by Dörpfeld (*Mitth.*, xii, p. 44) as a reference to the opisthodomos of the temple under discussion, and this fire is identified with the fire mentioned by Xenophon. But hitherto the opisthodomos in question has been supposed to be the rear part of the Parthenon, and there is no direct proof that Demosthenes and Xenophon refer to the same fire. If the temple discovered in 1886 existed in 406 B. C., it is highly probable that the passages mentioned refer to it, but the passages do not prove that it existed.

It remains for us to sift the evidence for the existence of the temple from the Persian War to 406 B. C. This has been collected by Dörpfeld¹⁵ and Lolling,¹⁶ who agree in thinking that the temple continued in existence throughout the fifth and fourth centuries, however much their views differ in other respects. But it seems to me that even thus much is not proved. I believe that, after the departure of the Persians, the Athenians partially restored the temple as soon as possible, because I do not see how they could have got along without it, inasmuch as it was used as the public treasury; but my belief, being founded upon little or no positive evidence, does not claim the force of proof.

¹⁵ *Mitth.*, xii, p. 25, ff.; 190 ff.; xv, p. 420, ff.

¹⁶ *Ἐκατόμπεδον* in the periodical *Ἀθηνᾶ* 1890, p. 628, ff. The inscription there published appears also in the *Δελτίον Ἀρχαιολογικόν*, 1890, p. 12, and its most important part is copied, with some corrections, by Dörpfeld, xv, p. 421.

Dörpfeld (xv, p. 424) says that the Persians left the walls of the temple and the outer portico standing; that this is evident "from the present condition of the architraves, triglyphs and cornices, which are built into the Acropolis wall. These architectural members were . . . taken from the building while it still stood, and built into the northern wall of the citadel." But, if the Athenians had wished to restore the temple as quickly as possible, they would have left these members where they were. It seems, at least, rather extravagant to take them carefully away and then restore the temple without a peristyle, for the restored building would probably need at least cornices if not triglyphs or architraves; then why not repair the old ones? It appears by no means impossible that, as Lolling (p. 655) suggests, only a part of the temple was restored.¹⁷ Still more natural is the assumption, that the Athenians carried off the whole temple while they were about it. I do not, however, dare to proceed to this assumption, because I do not know where the Athenians would have kept their public monies if the entire building had been removed. Perhaps part of the peristyle was so badly injured by the Persians that it could not be repaired. At any rate, the Athenians intended (as Dörpfeld, xii, p. 202, also believes) to remove the whole building so soon as the great new temple should be completed. I think they carried out their intention.

This brings us to the discussion of the names and uses of the various parts of the older temple and of the new one (the Parthenon), the evidence for the continued existence of the older temple being based upon the occurrence of these names in inscriptions and elsewhere. As these matters have been fully discussed by Dörpfeld and Lolling, I shall accept as facts without further discussion all points which seem to me to have been definitively settled by them.

¹⁷ LOLLING does not say how much of the temple was restored; but, as he assumes the continuation of a worship connected with the building, he would seem to imply that at least part (and in that case, doubtless, the whole) of the cella was restored, and he also maintains the continued existence of the opisthodomos and the two small chambers. E. CURTIUS, *Stadtgeschichte von Athen*, p. 132, believes that only the western half of the temple was restored. DÖRPFELD, p. 425, suggests the possibility that the entire building, even the peristyle, was restored, and that the peristyle remained until the erection of the Erechtheion.

Lolling, in the article referred to above, publishes an inscription put together by him from forty-one fragments. It belongs to the last quarter of the sixth century B. C., and relates to the pre-Persian temple. Part of the inscription is too fragmentary to admit of interpretation, but the meaning of the greater part (republished by Dörpfeld) is clear at least in a general way. The *ταμίαι* are to make a list of certain objects on the Acropolis with certain exceptions. The servants of the temple, priests, *etc.*, are to follow certain rules or be punished by fines. The *ταμίαι* are to open in person the doors of the chambers in the temple. These rules would not concern us except for the fact that the various parts of the building are mentioned. The whole building is called τὸ Ἑκατόμπεδον; parts of it are the *προνήϊον*, the *νεώς*, the *οἶκημα ταμιείων* and τὰ οἰκήματα. There can be no doubt that these are respectively the eastern porch, the main cella, the large western room and the two smaller chambers of the pre-Persian temple. But most important of all is the fact that the whole building was called in the sixth century B. C. τὸ Ἑκατόμπεδον. The word *οπισθόδομος* does not occur in the inscription, and we cannot tell whether the western half of the building was called *opisthodomos* in the sixth century or not. Very likely it was.

Lolling (p. 637) says: "No one, I think, will doubt that τὸ Ἑκατόμπεδον is the *νεώς ὁ Ἑκατόμπεδος* often mentioned in the inscriptions of the *ταμίαι* and elsewhere." If this is correct, the eastern cella of the Parthenon cannot be the *νεώς ὁ Ἑκατόμπεδος*. Lolling maintains that the eastern cella of the Parthenon was the *Parthenon* proper, that the western room of the Parthenon was the *opisthodomos*, and that the *νεώς ὁ Ἑκατόμπεδος* was the pre-Persian temple. Besides the official name Ἑκατόμπεδον or *νεώς ὁ Ἑκατόμπεδος*, Lolling thinks the pre-Persian temple was also called *ἀρχαῖος* (*παλαιός*) *νεώς*.¹⁸ Dörpfeld maintains that the western cella of the Parthenon was the *Parthenon* proper, the western part of the "old temple" was the *opisthodomos*, and the eastern cella of the Par-

¹⁸ LOLLING (p. 643) thinks the *ἀρχαῖος νεώς* of the inscriptions of the *ταμίαι CIA*, II, 753, 758 (*cf.* 650, 672) is the old temple of Brauronian Artemis, because in the same inscriptions the *ἐπιστάται* of Brauronian Artemis are mentioned. This seems to me insufficient reason for assuming that *ἀρχαῖος νεώς* means sometimes one temple and sometimes another.

thenon was the νεὸς ὁ Ἑκατόμπεδος, leaving the question undecided whether the "old temple" was still called τὸ Ἑκατόμπεδον in the fifth century, but laying great stress upon the difference in the expressions τὸ Ἑκατόμπεδον and ὁ νεὸς ὁ Ἑκατόμπεδος.¹⁹ Both Lolling and Dörpfeld agree that the πρόνεως of the inscriptions of the fifth century is the porch of the Parthenon.²⁰

Among the objects mentioned in the lists of treasure handed over by one board of ταμίαι to the next (*Uebergab-Urkunden* or "transmission-lists") are parts of a statue of Athena with a base and a Νίκη and a shield ἐν τῷ Ἑκατομπέδῳ. The material of this statue is gold and ivory. The only gold and ivory statue of Athena on the Acropolis was, so far as is known, the so-called *Parthenos* of Pheidias. Those inscriptions therefore prove that the Parthenos stood in the Hekatompedos (or Hekatompedon); that is, that the eastern cella of the Parthenon was called Ἑκατόμπεδος (ον) in the fifth century.²¹ Certainly, if there had been a second chryselephantine statue of Athena on the Acropolis, we should know of its existence:

When the Athenians built the great western room of the Parthenon, they certainly did not intend it to serve merely as a store-room for the objects described in the transmission-lists as ἐν τῷ Παρθενῶνι or ἐκ τοῦ Παρθενῶνος, these being mostly of little value or broken.²² Now the treasury of Athens was the opisthodomos, and the western room of the Parthenon was, from the moment of the completion of the building, the greatest opisthodomos in Athens. It is natural to regard this (with Lolling) as

¹⁹ *Mith.*, xv, p. 427 ff.

²⁰ LOLLING (p. 644) thinks the expression ἐν τῷ νεῷ τῷ Ἑκατομπέδῳ could not be used of a part of a building of which πρόνεως and Παρθενῶν were parts, *i. e.*, that a part of a temple could not be called νεός. Yet in the inscription published by Lolling the *προπίον* and the νεός are mentioned in apparent contradistinction to *ἔσαν τὸ Ἑκατόμπεδον*. It seems, as Dörpfeld says, only natural that the νεός should belong to the same building as the πρόνεως.

²¹ This was shown by U. KÖHLER, *Mith.*, v, p. 89 ff., and again by DÖRPFELD, xv, 430 ff., who quote the inscriptions. LOLLING's distinction between τὸ ἄγαλμα and τὸ χρυσοῦν ἄγαλμα cannot be maintained. cf. U. Köhler, *Sitzungsber. d. Berlin. Akad.*, 1889, p. 223.

²² A general view of these transmission-lists may be found at the back of MICHAELIS' *der Parthenon*; See also H. LEHNER, *Ueber die attischen Schatzverzeichnisse des vierten Jahrhunderts* (which Lolling cites. I have not seen it.)

the opisthodomos where the treasure was kept. This room was doubtless divided into three parts by two partitions of some sort, probably of metal,²³ running from the eastern and western wall to the nearest columns and connecting the columns. This arrangement agrees with the provision (*CIA*, 1, 32) that the monies of Athena be cared for ἐν τῷ ἐπὶ δεξιᾷ τοῦ ὀπισθοδόμου, those of the other gods ἐν τῷ ἐπ' ἀριστερά. Until the completion of the Parthenon, the opisthodomos of the pre-Persian temple might properly be the opisthodomos κατ' ἐξοχήν, but so soon as the Parthenon was finished, the new treasure-house would naturally usurp the name as well as the functions of its predecessor.

But, if the western room of the Periclean temple was the opisthodomos, where was the Παρθενών proper? It cannot be identical with the νεὸς ὁ ἑκατόμπεδος nor with the opisthodomos, for the three appellations occur at the same date evidently designating three different places. It would be easier to tell where the Παρθενών proper was, if we knew why it was called Παρθενών. The name was in all probability not derived from the Parthenos, but rather the statue was named from the Parthenon after the latter appellation had been extended to the whole building, for there is no evidence that the great statue was called Parthenos from the first. Its official title was, so far as is known, never Parthenos.²⁴ The Parthenon was not so named because it contained the Parthenos, but why it was so named we do not know. The πρόνεως is certainly the front porch, the ἑκατόμπεδος νεὸς is certainly the cella, 100 feet long, the ὀπισθοδόμος is the rear apartment (of some building, even if I have not made it seem probable that it is the rear apartment of the Parthenon). These names carry their explanation with them. But the name Παρθενών gives us no information. It was a part of the great Periclean temple, for the name was in later times applied to the whole building, and the only part of the building not named is the western porch. It is, however, incredible that the Athenians should use this porch, so prominently exposed to the eyes of

²³ See plans of the Parthenon, for instance, the one in the plan of the Acropolis accompanying Dörpfeld's article, *Mith.*, XII, *Taf.* 1.

²⁴ DÖRPFELD, XV, p. 430.

every sight-seer, as a store-house for festival apparatus, etc. It is more probable that the Παρθενών proper was within the walls of the building but separated from the other parts in some way. The middle division of the western room, separated by columns and metal partitions from the treasury of Athena on the right and that of the other gods on the left, was large enough and, being directly in front of the western door, prominent enough, to deserve a name of its own. If this room was the Παρθενών proper, it is evident that a fire in the opisthodomos would cause the Παρθενών to be emptied of its contents, which would then naturally be inventoried as ἐκ τῶν Παρθενῶνος, while another list could properly be headed ἐκ τῶν ὀπισθοδόμου referring to the treasure-chambers.²⁵ The name Parthenon might then be extended first to the entire western part of the building and then to the whole edifice. This is not a *proof* that the Παρθενών was the central part of the western room of the great temple. A complete proof is impossible. All I claim is that this hypothesis fulfils all the necessary conditions.

Let us now compare the nomenclature of the pre-Persian and Periclean temples. Both were temples of Athena and more especially of Athena as guardian of the city, Athena Polias; a *pronaos* or *proncion* formed part of each; one temple was called τὸ Ἐκατόμπεδον, and the main cella of the other was called ὁ Ἐκατόμπεδος νεώς²⁶, and this name was extended to the whole building. An opisthodomos was a part of each building, and, if I was right in

²⁵ DÖRPFELD, XII, p. 203 f., argues that these headings show that the treasure was moved after the fire of 406 from the opisthodomos of the old temple into the Παρθενών proper, which was emptied of its contents to make room. But the explanation given above seems equally possible. Dörpfeld, (*Mitth.*, VI, p. 283, ff.) proved conclusively that the Παρθενών was not the eastern cella of the Parthenon. His proof that it was the great western room is based primarily upon the assumption (p. 300) that *Der Name Opisthodom bezeichnet bei allen Tempeln die dem Pronaos entsprechende Hinterhalle*. But for that assumption the Παρθενών might just as well be the western porch. Since the discovery of the pre-Persian temple, however, Dörpfeld maintains that the opisthodomos κατ' ἐξοχὴν was the entire western portion of that temple, consisting of three rooms besides the porch (though he does not expressly include the porch). There is, then, no reason in the nature of things why the whole western part of the Parthenon should not be called opisthodomos.

²⁶ Or τὸ Ἐκατόμπεδον. Even after Dörpfeld's arguments, I cannot believe that any great difference in the use of the two expressions can be found.

my observations above, the new one, like the old, was called simply ὁ ὀπισθοδόμος. As soon as the great Periclean temple was completed, the temple burnt by the Persians was quietly removed as had been intended from the first, the treasure was deposited in the great new opisthodomos, the old ceremonies which might still cling to the temple of the sixth century were transferred, along with the old names, to the splendid new building; the greatest temple on the Acropolis was now as before the house of the patron goddess of the land, and contained her treasure and that of her faithful worshippers, but the two temples did not exist side by side.

There was, then, no reason for differentiating between the two temples, as, for instance, by calling the one that had been removed ὁ ἀρχαῖος νεώς, because the one that had been removed was no longer in existence. That the designation ἀρχαῖος (παλαιός) νεώς is applicable to the Erechtheion has been accepted for many years and has been explained anew by Petersen.²⁷ If the temple burnt by the Persians had continued to exist alongside of the Parthenon, one might doubt whether it or the Erechtheion was meant by the expression ὁ ἀρχαῖος νεώς, but if one of the two temples was no longer in existence, the name must belong to the other. It is just possible that in Hesychios, Ἐκατόμπεδος νεώς ἐν τῇ ἀκροπόλει τῇ Παρθένῳ κατασκευασθεὶς ὑπὸ Ἀθηναίων, μείζων τοῦ ἐμπρησθέντος ὑπὸ τῶν Περσῶν ποσὶ πεντήκοντα, the expression τοῦ ἐμπρησθέντος ὑπὸ τῶν Περσῶν (νεώ or possibly Ἐκατομπέδου νεώ) was originally chosen because the expression ἀρχαίου νεώ (which would otherwise be very appropriate here) was regularly used to designate the Erechtheion.²⁸

²⁷ *Mith.*, XII, p. 63 ff. Comparison of modern with ancient instances is frequently misleading, but sometimes furnishes a useful illustration. There is in Boston, Mass., a church called the *Old South* church. This became too small and too inconvenient for its congregation, so a new church was built in a distant part of the city. The intention then was to destroy the old building, in which case the new one (though new and in a different part of the city) would have been called the *Old South* church. The old building was, however, preserved, and the new one now goes by the name of the *New Old South* church, though I have also heard it called the *Old South* in spite of the continued existence of the old building. So the new building of the Erechtheion retained the name ἀρχαῖος νεώς which had belonged to its predecessor on the same spot.

²⁸ LOLLING (p. 638 ff.) discusses the measurements of the Parthenon and the old Hekatompedon, and finds a slight inaccuracy in the statement of Hesychios. He

At the end of his last article on this subject, Dörpfeld calls attention to the fact that "not only the lower step (*Unterstufe*) of the temple, but also a stone of the stylobate are still in their old position, and several stylobate-stones are still lying about upon the temple," and says that the whole stylobate, with the exception of the part cut away by the Erechtheion, must therefore have existed in Roman times. I do not see why quite so much is to be assumed. Even granting that we know the exact level of the surface of the Acropolis in classical times at every point, we certainly do not know all the objects—votive offerings and the like—set up in various places. Some small part of the stylobate of the ruined temple may have been used as a foundation for some group of statuary or other offering,²⁹ or a fragment of the building itself may have been left as a reminder to future generations of the devastations of the barbarians. The existence of these stones is called by Dörpfeld "a fact hitherto insufficiently considered" (*eine bisher nicht genügend beachtete Thatsache*). I cannot believe that the fact would have remained so long "insufficiently considered" by Dörpfeld and others if it were really in itself a sufficient proof that the pre-Persian temple continued in existence until the end of ancient Athens. If I am right in thinking that the temple did not exist during the last centuries of classical antiquity, it must have ceased to exist when the Parthenon was completed. Dörpfeld is certainly justified in saying³⁰ that "he who concedes the continued existence of the temple until the end of the fourth

thinks, however, (p. 641) that Hesychios would not compare the two unless they had both been standing at the same time. Possibly any inaccuracy may be accounted for by the fact that the older temple was no longer standing when the comparison was first made. Possibly, too, the name Hekatompedon was not originally meant to be taken quite literally, but rather, as Curtius, *Stadtgeschichte*, p. 72, seems to think, as a proud designation of a grand new building.

²⁹ Whether the present condition of the stone of the stylobate still *in situ* favors this conjecture, is for those on the spot to decide. It looks in Dörpfeld's plans (*Ant. Denkm.*, I, I, and *Mitth.*, XI, p. 337) as if it had a hole in it, such as are found in the pedestals of statues.

³⁰ *Mitth.*, xv, 438. This is directed against the closing paragraph of Lolling's article, where he says: "We cannot determine exactly when this (the removal of the temple) happened, but it seems that the temple no longer existed in the times of Plutarch," etc.

century has no right to let the temple disappear in silence later" (*darf den Tempel nicht später ohne weiteres verschwinden lassen*).

In the above discussion I have purposely passed over some points because I wished to confine myself to what was necessary. So I have not reviewed in detail the passages containing the expression ἀρχαῖος (παλαιός) νεός, as they have been sufficiently discussed by others. So, too, I have omitted all mention of the μέγαρον τὸ πρὸς ἐσπέραν τετραμμένον,³¹ the παραστάδες,³² the passages in Homer,³³ Aristophanes,³⁴ and some other writers, because these references and allusions, being more or less uncertain or indefinite, may be (and have been) explained, according to the wish of the interpreter, as evidence for or against the continued existence of the temple burnt by the Persians. Those who agree with me will interpret the passages in question accordingly.

To recapitulate briefly, I hope that I have shown: (1) that Pausanias does not mention the temple excavated in 1886, and (2) that the existence of that temple during the latter part of the fifth and the fourth centuries is not proved. I believe that the temple continued to exist in some form until the completion of the Parthenon, but this belief is founded not so much upon documentary evidence as upon the consideration that the Athenians and their goddess must have had a treasure-house during the time from the Persian invasion to the completion of the Parthenon; especially after the treasure of the confederacy of Delos was moved to Athens in 454 B. C. As soon, however, as the Parthenon was completed, the temple burnt by the Persians was removed. This was before the fire of 406 B. C. The fire, therefore, injured, as has been supposed hitherto, the Erechtheion. The opisthodomos, which was injured by fire at some time not definitely ascertained (but probably not very far from the date of the fire in the Erechtheion), was the opisthodomos of the Parthenon.

It will, I hope, be observed, that I do not claim to have *proved* the non-existence of the earlier temple after the completion of the Parthenon. All I claim is that its existence is not proved. Now

³¹ HEROD, V, 77.

³² CIA, II, 733, 735, 708.

³³ Od., VII. 80 f.; Il., II. 546 ff. Mitth., XII, pp. 26, 62, 207.

³⁴ PLUT., 1191 ff. cf. Mitth., XII, pp. 69, 206.

if, as I hope I have shown, the temple is not mentioned by Pausanias,³⁵ and there is no reasonable likelihood of its silent disappearance between 435 B. C. and the time of Pausanias, the probabilities are in favor of its disappearance about 435 B. C., when it was supplanted by the Parthenon. No one, however, would welcome more gladly than I any further evidence either for or against its continued existence.

HAROLD N. FOWLER.

Exeter, New Hampshire, March, 1892.

POSTSCRIPT.—This article had already left my hands when I received the *Journal of Hellenic Studies* (xii. 2), containing an article by Mr. Penrose, *On the Ancient Hekatompedon which occupied the site of the Parthenon on the Acropolis of Athens*. Mr. Penrose contends that the old Hekatompedon was a temple of unusual length in proportion to its width, that it stood on the site of the Parthenon, and was built 100 years or more before the Persian invasion. He thinks, too, that the Doric architectural members built into the Acropolis-wall, which are referred by Dörpfeld to the archaic temple beside the Erechtheion, belonged to the building on the site of the Parthenon. He is led to these assumptions chiefly by masons' marks on some of the stones of the sub-structure of the Parthenon. He holds it "as incontrovertible that the marks have reference to the building on which they are found." The distances between these marks offer certain numerical relations which must, Mr. Penrose thinks, correspond to some of the dimensions of the building to which the marks refer. "If they had reference to the Parthenon, they would have shown a number of exact coincidences with the important sub-divisions of the temple." Of these coincidences Mr. Penrose has found but three, which he considers fortuitous. As accessory arguments he adduces the condition of the filling in to the south of the Parthenon, and the absence of

³⁵ The fact that Pausanias does not mention this temple is not a certain proof that he might not have seen it, for he fails to mention other things that certainly existed in his day. This temple, however, if it then existed, must have been in marked contrast to almost every other building in the Acropolis, and would have had special attractions for a person of Pausanias' archaeological tastes.

THE TEMPLE ON THE ACROPOLIS BURNT BY THE PERSIANS. 17

old architectural material in the sub-structure of the Parthenon, etc. He seems, however, to rest his case chiefly upon the masons' marks.

I cannot even attempt to discuss this new theory in detail, but would mention one or two things which seem to tell against Mr. Penrose's view. The inscription published by Lolling mentions an *οἶκημα ταμείου* and *οἰκήματα* as parts of the Hekatompedon, and such apartments evidently existed in the temple beside the Erechtheion. Mr. Penrose assumes that the temple beside the Erechtheion antedates his Hekatompedon, without regard to the fact that the use of the stone employed in the outer foundations of the archaic temple points to a much later period. The archaic temple was (at least approximately) 100 feet long, which makes it seem almost impossible that a new temple should be built on the Acropolis and called the Hundred-foot-temple (Hekatompedon). I cannot avoid attaching more importance to these considerations than to the arguments advanced by Mr. Penrose. It may be, however, that answers to these and other objections will be found.

If Mr. Penrose's theory is correct, it is evident that the old Hekatompedon must have ceased to exist before the building of the Parthenon. Whether the archaic temple excavated in 1886 continued to exist or not is, then, another matter. My main contention (that there is no good reason for assuming the continued existence through the fifth and fourth centuries B. C. of the archaic temple) is not affected by Mr. Penrose's theory, and I leave my arguments, such as they are, for the consideration alike of those who do and who do not agree with Mr. Penrose. Much of my article will appear irrelevant to the former class, but, as Mr. Penrose's views may not be at once generally accepted, it is as well to leave the discussion of previous theories as it was before the appearance of Mr. Penrose's article.

H. N. F.

NOTE.—For a discussion of Mr. Penrose's theories and conclusions, see now (Nov. 1892), Dörpfeld, *Ath. Mitth.*, xvii, pp. 158, ff.

NOTES ON THE SUBJECTS OF GREEK TEMPLE- SCULPTURES.

The following compilation is intended to present in compact form the evidence at present available on this question: How far did the Greeks choose, for the sculptured decorations of a temple, subjects connected with the principal divinity or divinities worshipped in that temple? We have omitted some examples of sculpture in very exceptional situations, *e. g.*, the sculptured drums of the sixth century and fourth century temples of Artemis at Ephesos. Acroteria have also been omitted. But we have attempted to include every Greek temple known to have had pediment-figures or sculptured metopes or frieze, and have thus, for the sake of completeness, registered some examples which are valueless for the main question. The groups from Delos, attributed on their first discovery to the pediments of the Apollon-temple, have been proved by Furtwängler to have been acroteria (*Arch. Zeitung*, 1882, p. 336 ff.) It does not appear that Lebas had any good grounds for attributing to a temple the relief found by him at Rhamnus (*Voyage archéologique, Monuments figurés*, No. 19,) and now in Munich. The frieze from Priene representing a gigantomachy was not a part of the temple there (Wolters, *Jahrbuch des deutschen arch. Instituts*, I, pp. 56, ff.) The Poseidon and Amphitrite frieze in Munich (Brunn, *Beschreibung der Glyptothek*, No. 115) has been, by some, taken for a piece of temple decoration, but is too doubtful an example to be catalogued. The statement of Pausanias (II. 11. 8) about the pediment-sculptures (τὰ ἐν τοῖς ἀετοῖς) of the Asklepieion at Titane is hopelessly inadequate and perhaps inaccurate.

The order of arrangement in the following table is roughly chronological, absolute precision being impossible. Ionic tem-

ples are designated by a prefixed asterisk, the one Corinthian by a dagger. The others are Doric, and, in the case of these, "Sculptures of the Exterior Frieze" refers, of course, to sculptured metopes.

It has not been our purpose to discuss at length the conclusions to be drawn from this evidence. Briefly, the results may be summarized as follows:

The principal sculpture (*i. e.*, sculpture of the principal pediment, or, in the absence of pediment-sculpture, the frieze in the most important situation) included the figure of the temple divinity, generally in central position, in the following numbers: *7, 8, 9, 11, 13, 16, 18, 19, 26. If 12, 14 and 32 had no pediment-sculptures, they should be added; probably also 33 and 34. In 30 the subject of the pediment-sculpture, if correctly divined by Conze, was, at any rate, closely related to the temple-divinities.

The principal sculpture apparently did not include or especially refer to the temple-divinity in the following: 20, 24, 25. Practice would seem to have become somewhat relaxed after about 425 B. C. The very singular temple of Assos, (No. 5), though earlier, should perhaps be added.

The temple-divinity was represented in the western pediments of 7, 13 and perhaps of 20, but not of that in 9, 11, 24 (?) or 25.

The subjects of sculptured metopes and friezes were largely or wholly without obvious relation to the temple-divinity in the following: 1, 5, 9, 11, 12, 14, 19, 23, 29, 32.

F. B. TARBELL.

W. N. BATES.

* In counting the Aigina temple we commit deliberately a *circulus in probando*.

	PLACE.	DIVINITY.	DATE.	PEDIMENT-SCULPTURES.
1	Selinous (Temple C)	Apollon (?)	B. C. <i>ca.</i> 625	
2	Selinous		<i>ca.</i> 625	
3	Athens (Acropolis)		<i>ca.</i> 600	E.: (?) Zeus fighting Typhon; Herakles fighting serpent. W. (?): Herakles fighting Triton; Kerkopes (?)
4	Athens (Acropolis)		<i>ca.</i> 600	E. (?): Herakles fighting Hydra. W. (?): Herakles fighting Triton.
5	Assos		VI cent. (?)	
6	Metapontum	Apollon	VI cent. (?)	Subject unknown
7	Aigina	Athena	<i>ca.</i> 530 (?)	E. & W.: Combats of Greeks and Trojans; Athena in centre.
8	Athens (Acropolis)	Athena	<i>ca.</i> 530 (?)	E. (?): Gigantomachy, including Athena (in centre ?)
9	Delphi	Apollon	VI cent. after 548	E.: Apollon, Artemis, Leto, Muses. W.: Dionysos, Thyiads, Setting Sun, <i>etc.</i>
10	Selinous (Temple F)		VI cent.	
11	Olympia	Zeus	<i>ca.</i> 460	E.: Preparations for chariot-race of Pelops and Oinomaos; Zeus as arbiter in centre. W.: Centauromachy; Apollon (?) in centre.

SCULPTURES OF EXTERIOR FRIEZE	OTHER SCULPTURED DECORATIONS.
1 E.: in centre, two quadrigae with unidentified figs., also Perseus slaying Medusa, Herakles carrying Kerkopes, <i>etc.</i> W.: Subjects unknown.	
2 Europa on bull, winged sphinx, <i>etc.</i>	
3	

	PLACE.	DIVINITY.	DATE.	PEDIMENT-SCULPTURES.
12	Selinous (Temple E)	Hera (?)	B. C. ca. 450 (?)	
13	Athens (Acropolis)	Athena	ca. 445-438	E.: Birth of Athena. W.: Contest of Athena and Poseidon for At- tika.
14	Sunion	Athena	ca. 435 (?)	
15	Athens		ca. 435 (?)	E. & W.: Lost; sub- jects unknown.
*16	Athens (Acropolis)	Athena Nike	ca. 432	None
17	Kroton	Hera	v cent., 2d half	Undescribed.
18	Agrirentum	Zeus	v cent., before 405	
19	Bassae	Apollon	ca. 425 (?)	None.

	SCULPTURES OF EXTERIOR FRIEZE	OTHER SCULPTURED DECORATIONS.
12	None.	Metopes over pronaos: Herakles and Amazon, Zeus and Hera, Artemis and Aktaion, <i>etc.</i> Metopes over opisthodomos: Athena and Enkelados, <i>etc.</i>
13	E.: Gigantomachy; Athena over central intercolumniation. W.: Amazonomachy. S.: Centauromachy and seven scenes from Iliupersis. N.: Iliupersis and nine scenes from Centauromachy.	Ionic frieze around cella, pronaos and opisthodomos: Panathenaic procession.
14		Ionic frieze on four inner sides of E. vestibule, between pronaos and outer columns: Gigantomachy, including Athena (over entrance to pronaos (?), Centauromachy, exploits of Theseus.
15	E.: Labors of Herakles. N. & S., at E. end (four metopes on each side): exploits of Theseus.	Ionic frieze over pronaos and across pteroma: battle scene. Ionic frieze over opisthodomos, Centauromachy.
*16	E.: assemblage of gods, Athena in centre. N. W. S.: battle-scenes.	
17		
18	E.: Gigantomachy. W.: Iliupersis.	
19	None.	Metopes over pronaos: Apolline and Dionysiac scenes. Interior cella-frieze: Amazonomachy, Centauromachy (Apollon and Artemis represented.)

	PLACE.	DIVINITY.	DATE.	PEDIMENT-SCULPTURES.
20	near Argos	Hera	B. C. ca. 420.	E.: Birth of Zeus (?) W.: Battle of Greeks and Trojans. (?)
*21	Athens (Acropolis)	Erechtheus	420-408	None.
*22	Locri Epizephyrii		v cent., latter part	E.: Lost. W.: Subject unknown, including Dioscuri (?)
*23 24	Samothrace Tegea	Cabiri Athena Alea	ca. 400 iv cent., first half	E.: Calydonian boar- hunt (no divinity represented.) W.: Contest of Tele- phos and Achilles.
25	Epidauros	Asklepios	ca. 375 (?)	E.: Centauromachy. W.: Amazonomachy.
26	Thebes	Herakles	ca. 370 (?)	Labors of Herakles.
*27	Ephesos	Artemis	ca. 330	
*28	Troad	Apollon Smintheus	III cent.	
*29 30	Magnesia Samothrace	Artemis Cabiri	III cent. III cent. III cent.	N.: Demeter seeking Persephone (?)
†31 32	Lagina Ilium Novum	Hekate Athena (?)	II cent. (?)	
*33	Teos	Dionysos	Roman times	
*34	Knidos	Dionysos (?)	Roman times	

SCULPTURES OF EXTERIOR FRIEZE	OTHER SCULPTURED DECORATIONS.
20 E. : Gigantomachy (?) W. : Iliupersis (?)	
*21 Uninterpreted.	
*22	
*23 Dancing women. 24	
25	
26	
*27 Mythological scenes.	
*28 Scenes of combat.	
*29 Amazonomachy. 30	
†31 Subjects unknown.	
32 Helios in chariot, Athena and Enkelados, other scenes of combat.	
*33 Dionysiac procession.	
*34 Dionysiac scenes, <i>etc.</i>	

1. BENNDORF, *Metopen von Selinunt*, pp. 38-50; SERRADIFALCO, *Antichità di Sicilia*, II, p. 16.
2. *Monumenti Antichi*, I, p. 950 ff.
3. BRÜCKNER, *Athenische Mittheilungen*, 1889, pp. 67 ff.; 1890, pp. 84 ff.
4. MEIER, *Ath. Mitth.*, 1885, pp. 237 ff., 322 ff.
5. CLARAC, *Musée de Sculpture*, II, pp. 1149 ff.; CLARKE, *Report on Investigations at Assos*, pp. 105-121. This temple has been usually assigned to the sixth century. Mr. Clarke brings it down to about the middle of the fifth. His arguments have not yet been published in full.
6. LACAVA, *Topografia e Storia di Metaponto*, p. 81.
7. Since the inscription which was at one time supposed to fix the divinity of this temple has been disposed of (by LOLLING, in *Arch. Zeitung*, XXXI (1874) p. 58, the designation given above rests solely on the prominence given to Athena in the pediment-sculptures. As for the date, the building is assigned by Dörpfeld to the sixth cent. (*Olympia, Textband II*, p. 20). The pediment-sculptures might be later, but are now confidently carried by STUDNICZKA (*Ath. Mitth.*, 1886, pp. 197-8) some decades back in the sixth century.
8. STUDNICZKA, *Ath. Mitth.*, 1886, pp. 185, ff.; MAYER, *Giganten und Titanen*, pp. 290-91. According to DÖRPFELD, the metopes of this temple, or some of them, may have been sculptured.
9. PAUS., x. 19. 4. EURIP., *Ion*, 184 ff. The temple seems to have been long in building. If AISCH. *contra Ctes.*, § 116, is to be believed, the dedication did not take place till after 479. According to Pausanias, the pediment-sculptures were the work of Praxias and Androstenes. These sculptures have been generally supposed to have been executed about 424, but may have been considerably earlier, so far as Pausanias goes to show. The excavations now in progress will, it is to be hoped, clear up the whole subject.
10. BENNDORF, *op. cit.*, pp. 50-52.
11. PAUS., v., 10. 6-9. For the date, see DÖRPFELD, *Olympia, Textband II*, pp. 19 ff. FLASCH, in Baumeister's *Denkmäler*, pp. 1098-1100.
12. BENNDORF, *op. cit.*, pp. 53-60. The attribution of the temple to Hera rests on the dubious ground of a single votive inscription to Hera found within the cella; *op. cit.*, p. 34.
13. PAUS., I. 24. 5; MICHAELIS, *Der Parthenon*, pp. 107-265; ROBERT, *Arch. Zeit.*, 1884, pp. 47-58; MAYER, *Giganten und Titanen*, pp. 366-370.
14. FABRICIUS, *Ath. Mitth.*, 1884, 338 ff.; for the date, DÖRPFELD, *ibid.* p. 336.
15. The so-called Theseion.
16. ROSS, *Temple der Nike Apteros*, pls. 11-12; FRIEDERICHs, *Bausteine*, (ed. Wolters) Nos. 747-760. On the date, see WOLTERS, *Bonner Studien Reinhard Kekulé gewidmet*, pp. 92-101.
17. *Eighth Annual Report of the Archaeological Institute of America*, pp. 42 ff.
18. DIOD. SIC., XIII. 82. It is disputed whether Diodorus speaks of pediment-sculptures or metopes; see PETERSEN, *Kunst des Pheidias*, p. 208, Note 4. Nothing can be made of the existing fragments; published by SERRADIFALCO, *Antichità di Sicilia*, III, pl. 25.
19. COCKERELL, *Temples of Aegina and Bassae*, pp. 49-50, 52.
20. PAUS., II. 17. 3. The distribution of subjects given above is that proposed by Dr. Waldstein, in the light of the discoveries made on the site of the Herion

- under his direction in the spring of 1892. See *Thirteenth Annual Report of the Archaeological Institute of America*, p. 64.
21. FRIEDERICHs, *Bausteine* (ed. Wolters) Nos. 812-820. On the date see MICHAELIS, *Ath. Mitth.*, 1889, pp. 349 ff.
 22. *Notizie degli Scavi*, 1890, pp. 255-57; PETERSEN, *Bull. dell' Istituto*, 1890, pp. 201-27.
 23. CONZE, etc., *Arch. Untersuchungen auf Samothrake*, II, pp. 13-14, 23-25.
 24. PAUS., VIII. 45. 4-7; TREU, *Ath. Mitth.*, 1881, pp. 393-423; WEIL, in *Baumeister's Denkmäler*, 1666-69.
 25. Ἐφημερίς Ἀρχαιολογική, 1884, pp. 49-60; 1885, pp. 41-44. For the date see FOUCART, *Bull. de corr. hellén.*, 1890, pp. 589-92.
 26. PAUS., IX. 11. 4. The date given above conforms to the view of BRUNN, *Sitzungsber. d. Münch. Akademie*, 1880, pp. 435 ff.
 27. WOOD, *Discoveries at Ephesus*, p. 271.
 28. *Antiquities of Ionia*, IV, p. 46. Mr. Pullan is inclined to date the temple after Alexander; Prof. Middleton somewhat earlier (*Smith's, Dict. of Antig.*, 3d ed., II, p. 785).
 29. CLARAC, *Musée de Sculpture*, II, pp. 1193-1233; pls. 117 C-J. Additional pieces of the frieze have recently been found in the course of excavations conducted by the German Archaeological Institute. The date given above for the building is that suggested by DÖRPFELD, *Ath. Mitth.*, 1891, pp. 264-5. Most of the sculpture is generally regarded as of much later date.
 30. CONZE, etc., *Untersuchungen auf Samothrake*, I, pp. 24-7, 43-4.
 31. NEWTON, *Discoveries at Halicarnassus, etc.*, II, pp. 554-67.
 32. MAYER, *Giganten und Titanen*, pp. 370-71.
 33. *Antiquities of Ionia*, IV, pp. 38-9.
 34. NEWTON, *Discoveries at Halicarnassus, etc.*, II, pp. 449-50, 633.

PAPERS OF THE AMERICAN SCHOOL OF CLASSICAL
STUDIES AT ATHENS.

THE RELATION OF THE ARCHAIC PEDIMENT
RELIEFS FROM THE ACROPOLIS TO
VASE-PAINTING.

[PLATE I.]

From one point of view it is a misfortune in the study of archaeology that, with the progress of excavation, fresh discoveries are continually being made. If only the evidence of the facts were all in, the case might be summed up and a final judgment pronounced on points in dispute. As it is, the ablest scholar must feel cautious about expressing a decided opinion; for the whole fabric of his argument may be overturned any day by the unearthing of a fragment of pottery or a sculptured head. Years ago, it was easy to demonstrate the absurdity of any theory of polychrome decoration. The few who dared to believe that the Greek temple was not in every part as white as the original marble subjected themselves to the pitying scorn of their fellows. Only the discoveries of recent years have brought proof too positive to be gainsaid. The process of unlearning and throwing over old and cherished notions is always hard; perhaps it has been especially so in archaeology.

The thorough investigation of the soil and rock of the Acropolis lately finished by the Greek Government has brought to light so much that is new and strange that definite explanations and conclusions are still far away. The pediment-reliefs in poros which now occupy the second and third rooms of the Acropolis Museum have already been somewhat fully treated, especially in their architectural bearings. Dr. Brückner of the German Institute

has written a full monograph on the subject,¹ and it has also been fully treated by Lechat in the *Revue Archéologique*.² Shorter papers have appeared in the *Mittheilungen* by Studniczka³ and P. J. Meier.⁴ Dr. Waldstein in a recent peripatetic lecture suggested a new point of view in the connection between these reliefs and Greek vase-paintings. It is this suggestion that I have tried to follow out.

The groups in question are too well known to need a detailed description here. The first,⁵ in a fairly good state of preservation, represents Herakles in his conflict with the Hydra, and at the left Iolaos, his charioteer, as a spectator. Corresponding to this, is the second group,⁶ with Herakles overpowering the Triton; but the whole of this is so damaged that it is scarcely recognizable. Then there are two larger pediments in much higher relief, the one⁷ repeating the scene of Herakles and the Triton, the other⁸ representing the three-headed Typhon in conflict, as supposed, with Zeus. All four of these groups have been reconstructed from a great number of fragments. Many more pieces which are to be seen in these two rooms of the Museum surely belonged to the original works, though their relations and position cannot be determined. The circumstances of their discovery between the south supporting-wall of the Parthenon and Kimon's inner Acropolis wall make it certain that we are dealing with pre-Persian art. It is quite as certain, in spite of the fragmentary condition of the remains, that they were pedimental compositions and the earliest of the kind yet known.

The first question which presents itself in the present consideration is: Why should these pedimental groups follow vase paintings? We might say that in vases we have practically the first products of Greek art; and further we might show resemblances, more or less material, between these archaic reliefs and vase pictures. But the proof of any connection between the two would still be wanting. Here the discoveries made by the Germans at

¹ *Mitth. deutsch. arch. Inst. Athen.*, XIV, p. 67; XV, p. 84. ² *Rev. Arch.*, XVII, p. 304; XVIII, pp. 12, 137. ³ *Mitth. Athen.*, XI, p. 61. ⁴ X, pp. 237, 322. Cf. Studniczka, *Jahrbuch deutsch. arch. Inst.*, I, p. 87; Purgold, *Εφήμερις Ἀρχαιολογική*, 1884, p. 147, 1885, p. 234. ⁵ *Mitth. Athen.*, X, cut opposite p. 237; *Εφήμερις*, 1884, πλινξ 7.

⁶ *Mitth. Athen.*, XI, Taf. II. ⁷ *Idem*, XV, Taf. II. ⁸ *Idem*, XIV, Taf. II, III.

Olympia and confirmed by later researches in Sicily and Magna Graecia, are of the utmost importance.⁹ In the Byzantine west wall at Olympia were found great numbers of painted terracotta plates¹⁰ which examination proved to have covered the cornices of the Geloan Treasury. They were fastened to the stone by iron nails, the distance between the nail-holes in terracottas and cornice blocks corresponding exactly. The fact that the stone, where covered, was only roughly worked made the connection still more sure. These plates were used on the cornice of the long side, and bounded the pediment space above and below. The corresponding cyma was of the the same material and similarly decorated.

It seems surprising that such a terracotta sheathing should be applied on a structure of stone. For a wooden building, on the other hand, it would be altogether natural. It was possible to protect wooden columns, architraves and triglyphs from the weather by means of a wide cornice. But the cornice itself could not but be exposed, and so this means of protection was devised. Of course no visible proof of all this is at hand in the shape of wooden temples yet remaining. But Dr. Dörpfeld's demonstration¹¹ removes all possible doubt. Pausanias¹² tells us that in the Heraion at Olympia there was still preserved in his day an old wooden column. Now from the same temple no trace of architrave, triglyph or cornice has been found; a fact that is true of no other building in Olympia and seems to make it certain that here wood never was replaced by stone. When temples came to be built of stone, it seems that this plan of terracotta covering was retained for a time, partly from habit, partly because of its fine decorative effect. But it was soon found that marble was capable of withstanding the wear of weather and that the ornament could be applied to it directly by painting.

⁹ I follow closely Dr. Dörpfeld's account and explanation of these discoveries in *Ausgrabungen zu Olympia*, v, 30 seq. See also *Programm zum Winckelmannsfeste*, Berlin, 1881. *Ueber die Verwendung Terracotten*, by Messrs. DÖRPFELD, GRÄBER, BORRMANN, and SIEBOLD.

¹⁰ Reproduced in *Ausgrabungen zu Olympia*, v, Taf. XXXIV. BAUMEISTER, *Denkmäler des klassischen Altertums*, Taf. XLV. RAYET et COLLIGNON, *Histoire de la Céramique Grecque*, pl. XV.

¹¹ *Historische und philologische Aufsätze*, Ernst Curtius gewidmet. Berlin, 1884, p. 137 seq. ¹² v, 20. 6.

In order to carry the investigation a step further Messrs. Dörpfeld, Gräber, Borrmann and Siebold undertook a journey to Gela and the neighboring cities of Sicily and Magna Graecia.¹³ The results of this journey were most satisfactory. Not only in Gela, but in Syracuse, Selinous, Akrai, Kroton, Metapontum and Paestum, precisely similar terracottas were found to have been employed in the same way. Furthermore just such cyma pieces have been discovered belonging to other structures in Olympia and amid the pre-Persian ruins on the Acropolis of Athens. It is not yet proven that this method of decoration was universal or even widespread in Greece; but of course the fragile nature of terracotta and the fact that it was employed only in the oldest structures, would make discoveries rare.

Another important argument is furnished by the certain use of terracotta plates as acroteria. Pausanias¹⁴ mentions such acroteria on the Stoa Basileios on the agora of Athens. Pliny¹⁵ says that such works existed down to his day, and speaks of their great antiquity. Fortunately a notable example has been preserved in the acroterium of the gable of the Heraion at Olympia,¹⁶ a great disk of clay over seven feet in diameter. It forms a part, says Dr. Dörpfeld, of the oldest artistic roof construction that has remained to us from Greek antiquity. That is, the original material of the acroteria was the same used in the whole covering of the roof, namely terracotta. The gargoyles also, which later were always of stone, were originally of terracotta. Further we find reliefs in terracotta pierced with nail-holes and evidently intended for the covering of various wooden objects; sometimes, it is safe to say, for wooden sarcophagi. Here appears clearly the connection that these works may have had with the later reliefs in marble.

To make now a definite application, it is evident that the connection between vase-paintings and painted terracottas must from the nature of the case be a very close one. But when these terracottas are found to reproduce throughout the exact designs and figures of vase-paintings, the line between the two fades away. All the most familiar ornaments of vase technic recur again and

¹³ Cf. *supra*, *Programm zum Winckelmannsfeste*. ¹⁴ 1, 3. 1.

¹⁵ *His. Nat.*, xxxv, 158. ¹⁶ *Ausgrabungen zu Olympia*, v, 35 and *Taf.* xxxiv.

again, maeanders, palmettes, lotuses, the scale and lattice-work patterns, the bar-and-tooth ornament, besides spirals of all descriptions. In execution, also, the parallel is quite as close. In the great acroterium of the Heraion, for example, the surface was first covered with a dark varnish-like coating on which the drawing was incised down to the original clay. Then the outlines were filled in black, red and white. Here the bearing becomes clear of an incidental remark of Pausanias in his description of Olympia. He says (v. 10.): ἐν δὲ Ὀλυμπίᾳ (of the Zeus temple) λέβης ἐπίχρυσος ἐπὶ ἐκάστῳ τοῦ ὀρόφου τῷ πέρατι ἐπικείται. That is originally acroteria were only vases set up at the apex and on the end of the gable. Naturally enough the later terracottas would keep close to the old tradition.

It is interesting also to find relief-work in terracotta as well as painting on a plane surface. An example where color and relief thus unite, which comes from a temple in Caere,¹⁷ might very well have been copied from a vase design. It represents a female face in relief, as occurs so often in Greek pottery, surrounded by an ornament of lotus, maeander and palmette. Such a raised surface is far from unusual; and we seem to find here an intermediate stage between painting and sculpture. The step is indeed a slight one. A terracotta figurine¹⁸ from Tarentum helps to make the connection complete. It is moulded fully in the round, but by way of adornment, in close agreement with the tradition of vase-painting, the head is wreathed with rosettes and crowned by a single palmette. So these smaller covering plates just spoken of, which were devoted to minor uses, recall continually not only the identical manner of representation but the identical scenes of vase paintings,—such favorite subjects, to cite only one example, as the meeting of Agamemnon's children at his tomb.

From this point of view, it does not seem impossible that pedimental groups might have fallen under the influence of vase technic. The whole architectural adornment of the oldest temple was of pottery. It covered the cornice of the sides, completely bounded the pedimental space, above and below, and finally

¹⁷ *Arch. Zeitung*, XXIX, 1872, *Taf.* 41; RAYET et COLLIGNON, *Hist. Céram. Grecque*, fig. 143. ¹⁸ *Arch. Zeitung*, 1882, *Taf.* 13.

crowned the whole structure in the acroteria. It would surely be strange if the pedimental group, framed in this way by vase designs, were in no way influenced by them. The painted decoration of these terracottas is that of the bounding friezes in vase-pictures. The vase-painter employs them to frame and set off the central scene. Might not the same end have been served by the terracottas on the temple, with reference to the scene within the typanum? We must remember, also, that at this early time the sculptor's art was in its infancy while painting and the ceramic art had reached a considerable development. Even if all analogy did not lead the other way, an artist would shrink from trying to fill up a pediment with statues in the round. The most natural method was also the easiest for him.

On the question of the original character of the pedimental group, the Heraion at Olympia, probably the oldest Greek columnar structure known, furnishes important light. Pausanias says nothing whatever of any pedimental figures. Of course his silence does not prove that there were none; but with all the finds of acroteria, terracottas and the like, no trace of any such sculptures was discovered. The inference seems certain that the pedimental decoration, if present at all, was either of wood or of terracotta, or was merely painted on a smooth surface. The weight of authority inclines to the last view. It is held that, if artists had become accustomed to carving pedimental groups in wood, the first examples that we have in stone would not show so great inability to deal with the conditions of pedimental composition. If ever the tympanum was simply painted or filled with a group in terracotta, it is easy to see why the fashion died and why consequently we can bring forward no direct proof to-day. It was simply that only figures in the round can satisfy the requirements of a pedimental composition. The strong shadows thrown by the cornice, the distance from the spectator, and the height, must combine to confuse the lines of a scene painted on a plane surface, or even of a low relief. So soon as this was discovered and so soon as the art of sculpture found itself able to supply the want, a new period in pedimental decoration began.

Literary evidence to support this theory of the origin of pediment sculpture is not lacking. Pliny says in his *Natural History*

(xxxv. 156.): *Laudat (Varro) et Pasitelen qui plasticen matrem caelaturæ et statuariæ sculpturaeque dixit et cum esset in omnibus his summus nihil unquam fecit antequam finxit.* Also (xxxiv. 35.): *Similitudines exprimendi quae prima fuerit origo, in ea quam plasticen Graeci vocant dici convenientius erit, etenim prior quam statuaria fuit.* In both these cases the meaning of "plasticen" is clearly working, that is, moulding, in clay. Pliny, again (xxxv. 152.), tells us of the Corinthian Butades: *Butadis inventum est rubricam addere aut ex rubra creta fingere, primusque personas tegularum extremis imbricibus imposuit, quae inter initia prostypa vocavit, postea idem ectypa fecit. hinc et fastigia templorum orta.* The phrase *hinc et fastigia templorum orta*, has been bracketed by some editors because they could not believe the fact which it stated. *Fastigia* may from the whole connection and the Latin mean "pediments." This is quite in accord with the famous passage in Pindar,¹⁹ attributing to the Corinthians the invention of pedimental composition. Here then we have stated approximately the conclusion which seems at least probable on other grounds, namely, that the tympanum of the pediment was originally filled with a group in terracotta, beyond doubt painted and in low relief.

But if we assume that the pedimental group could have originated in this way, we must be prepared to explain the course of its development up to the pediments of Aegina and the Parthenon, in which we find an entirely different principle, namely, the filling of these tympana with figures in the round. It is maintained by some scholars, notably by Koepp,²⁰ that no connection can be established between high relief and low relief, much less between statues entirely in the round and low relief. High relief follows all the principles of sculpture, while low relief may almost be considered as a branch of the painter's art. But this view seems opposed to the evidence of the facts. For there still exists a continuous series of pedimental groups, first in low relief then in high relief, and finally standing altogether free from the background, and becoming sculpture in the round. Examples in low relief are the Hydra pediment from the Acropolis and the pediment of the Megarian Treasury at Olympia, which, on artistic

¹⁹ *Olymp.*, xiii, 21.

²⁰ *Jahrbuch deutschen archäol. Instituts*, II, 118.

grounds, can be set down as the two earliest now in existence. Then follow, in order of time and development, the Triton and Typhon pediments, in high relief, from the Acropolis; and after these the idea of relief is lost, and the pediment becomes merely a space destined to be adorned with statuary. Can we reasonably believe that the Hydra and Triton pediments, standing side by side on the Acropolis, so close to each other in time and in technic, owe their origin to entirely different motives, merely for the reason that the figures of one stand further out from the background than those of the other? Is it not easier to suppose that the higher reliefs, as they follow the older low reliefs in time, are developed from them, than to assume that just at the dividing-line a new principle came into operation?

It is a commonplace to say that sculpture in relief is only one branch of painting. Conze²¹ publishes a sepulchral monument which seems to him to mark the first stage of growth. The surface of the figure and that of the surrounding ground remain the same; they are separated only by a shallow incised line. Conze says of it; "The tracing of the outline is no more than, and is in fact exactly the same as, the tracing employed by the Greek vase-painter when he outlined his figure with a brush full of black paint before he filled in with black the ground about it." The next step naturally is to cut away the surface outside and beyond the figures; the representation is still a picture except in the clearer marking of the bounding-line. The entire further growth and development of the Greek relief is in the direction of rounding these lines and of detaching the relief more and more from the back surface. This primitive picturesque method of treatment is found as well in high relief as in low. How then can the process of development be different for the two? I quote from Friedrichs-Wolters²² on the metopes of the temple of Apollon at Selinous, which are distinctly in high relief: "The relief of these works stands very near to the origin of relief-style. The surface of the figures is kept flat throughout, although the effort to represent them in their full roundness is not to be

²¹ *Das Relief bei den Griechen. Sitzungs-Berichte der Berliner Akademie*, 1882, 567.

²² *Gipsabgüsse antiker Bilderwerke*, Nos. 149-151.

mistaken. Only later were relief-figures rounded on the front and sides after the manner of free figures. Originally, whether in high or in low relief, they were flat forms, modelled for the plane surface whose ornament they were to be." As the sculptured works were brought out further and further from the background, this background tended to disappear. It was no longer a distinctly marked surface on which the figures were projected, but now higher and now lower, serving only to hold the figures together. When this point was reached, the entire separation of the figures from one another and from the background, became easy. That is, the change in conception is an easy step by which the relief was lost and free-standing figures substituted. This process of change was especially rapid in pedimental groups, for the reason stated above. The pediment field from its architectonic conditions was never suited to decoration in relief. But we find from the works before us that such a system was at least attempted, that painting and an increased projection of relief were employed as aids. We are bound to seek a logical explanation of the facts and of their bearing on the later history of art, and it is safer to assume a process of regular development than a series of anomalous changes. Koepp (*cf. supra*), for example, assumes that these two pediments in low relief are simply exceptions to the general rule, accounting for them by the fact that it was difficult to work out high reliefs from the poros stone of which they were made. He seems to forget that the higher reliefs from the Acropolis are of the same poros. This material in fact appears to have been chosen by the artist because it was almost as easy to incise and carve as the wood and clay to which he had been accustomed. The monuments of later Greek art give no hint of a distinction to be drawn between high and low relief. We find on the same stele figures barely attached to the ground, and others in mere outline. If then there are reasons for finding the origin of pedimental decoration in a plane or low-relief composition of terracotta, made more effective both by a framing of like material and technic, and by the acroteria at either extremity and above, then the process of development which leads at length to the pediments at Aegina and the Parthenon becomes at once easy and natural. We note first the change from terracotta to a low painted relief in stone, then this relief becomes,

from the necessities of the case, higher and higher until finally it gives place to free figures.

If ceramic art really did exert such an influence on temple-sculpture, we should be able to trace analogies in other lines. The most interesting is found in the design and execution of sepulchral monuments. Milchhoefer²³ is of the opinion that the tomb was not originally marked by an upright slab with sculptured figures. He finds what he thinks the oldest representation of sepulchral ornament in a black-figured vase of the so-called "prothesis" class.²⁴ Here are two women weeping about a sepulchral mound on which rests an amphora of like form to the one that bears the scene. He maintains then that such a prothesis vase was the first sepulchral monument, that this was later replaced by a vase of the same description in marble, of course on account of the fragile nature of pottery. For this reason, too, we find no certain proof of the fact in the old tombs, though Dr. Wolters²⁵ thinks that the discovery of fragments of vases on undisturbed tombs makes the case a very strong one. The use of such vases or urns of marble for this purpose became very prevalent. They are nearly always without ornament, save for a single small group, in relief or sometimes in color, representing the dead and the bereaved ones. A very evident connecting-link between these urns and the later sepulchral stele appears in monuments which show just such urns projected in relief upon a plane surface. The relief is sometimes bounded by the outlines of the urn itself,²⁶ sometimes a surrounding background is indicated. In many cases this background assumes the form of the ordinary sepulchral stele. The Central Museum at Athens is especially rich in examples of this kind. On two steles which I have noticed there, three urns are represented side by side. A still more interesting specimen is a stone so divided that its lower part is occupied by an urn in relief, above which is sculptured the usual scene of parting. This

²³ *Mitth. Athen.*, v, 164.

²⁴ *Monumenti dell' Inst.*, VIII, tav. v. 1. g. A.: found near Cape Kolias; at present in the Polytechnic Museum at Athens.

²⁵ *Attische Grabvasen*, a paper read before the German Institute in Athens, Dec. 9, 1890.

²⁶ Examples are Nos. 2099 and 2100 in the archaic room of the Louvre. I remember having seen nothing similar in any other European museum.

scene has its normal place as a relief or a drawing in color on the surface of the urn itself; here, where the step in advance of choosing the plane stele to bear the relief seems already taken, the strength of tradition still asserts itself, and a similar group is repeated on the rounded face of the urn below. The transition to the more common form of sepulchral monument has now become easy; but the characteristics which point to its genesis in the funeral vase are still prominent.

This process of development, so far as can be judged from existing types, reaches down to the beginning of the fourth century B. C. Steles of a different class are found, dating from a period long before this. Instead of a group, they bear only the dead man in a way to suggest his position or vocation during life. All show distinctly a clinging to the technic of ceramic art. Sculptured steles and others merely painted exist side by side. The best known of the latter class is the Lyseas stele, in the Central Museum at Athens. Many more of the same sort have been discovered, differing from their vase predecessors in material and form, but keeping to the old principles. The outlines, for example, are first incised, and then the picture is finished with color. The Aristion stele may be taken as an example of the second order. Relief plays here the leading part; but it must still be assisted by painting, while the resemblance to vase-figures in position, arrangement of clothing, proportion and profile, remains as close as in the simply painted stele. An ever present feature, also, is the palmette acroterium, treated in conventional ceramic style. Loeschke thinks that the origin of red-figured pottery is to be found in the dark ground and light coloring of these steles. Whether the opinion be correct or not, it points to a very close connection between the two forms of art.

The influence of ceramic decoration spread still further. Large numbers of steles and bases for votive offerings have been discovered on the Acropolis, which alike repeat over and over again conventional vase-patterns, and show the use of incised lines and other peculiarities of the technic of pottery.²⁵

As to specific resemblances between the pediments of the Acropolis and vase-pictures, the subjects of all the groups are such

²⁵ *Mith. Athen.*, IV, 36.

²⁶ BORRMANN, *Jahrbuch des Instituts*, III, 274.

as appear very frequently on vases of all periods. About seventy Attic vases are known which deal with the contest of Herakles and Triton. One of these is a hydria at present in the Berlin Museum, No. 1906.²⁹ Herakles is represented astride the Triton, and he clasps him with both arms as in the Acropolis group. The Triton's scaly length, his fins and tail, are drawn in quite the same way. It is very noticeable that on the vase the contortions of the Triton's body seem much more violent; here the sculptor could not well follow the vase-painter so closely. It was far easier for him to work out the figure in milder curves; but he followed the vase-type as closely as possible. On the other hand, if the potter had copied the pedimental group the copy could perfectly well have been an exact one. The group is very similar also to a scene in the Assos frieze, with regard to which I quote from Friedrichs-Wolters;³⁰ "It corresponds to the oldest Greek vase-paintings, in which we find beast fights borrowed from Oriental art, united with Greek myths and represented after the Greek manner." This frieze is ascribed to the sixth century B. C., and is not much later than our pediments.

For the Hydra pediment, there exists a still closer parallel, in an archaic Corinthian amphora, published by Gerhard.³¹ Athena appears here as a spectator, though she has no part in the pedimental group; but in every other point, in the drawing of the Hydra, of Herakles and Iolaos, the identity is almost complete. Athena seems to have been omitted, because the artist found it difficult to introduce another figure in the narrow space. Evidently the vase must have represented a type known to the sculptor and copied by him.

For the Typhon pediment, no such close analogies are possible, at least in the form and arrangement of figures. It would seem that this is so simply because no vase-picture of this subject that

²⁹ Published by GERHARD, *Auserlesene griechische Vasenbilder*, No. 111; RAYET et COLLIGNON, *Hist. Céram. Grecque*, fig. 57, p. 125. In the National Museum at Naples, No. 3419, is a black-figured amphora which repeats the same scene. The drawing and position of the two contestants is just as on the Berlin vase, the Triton seeking with one hand to break Herakles' hold about his neck, while with the other he holds a fish as attribute. Athena stands close by, watching the struggle.

³⁰ *Gipsabgüsse antiker Bildwerke*, Nos. 8-12.

³¹ *Auserlesene Vasenbilder*, Nos. 95, 96.

we know so far answers the conditions of a pedimental group that it could be used as a pattern. In matters of detail, a hydria in Munich, No. 125,²² offers the best illustration. For example, the vase-painting and the relief show quite the same treatment of hair, beard and wings in the figure of Typhon.

Speaking more generally, we find continually in the pediments reminiscences of ceramic drawing and treatment. The acroteria, painted in black and red on the natural surface of poros stone, take the shape of palmettes and lotuses. The cornices above and below are of clay or poros, painted in just such designs as appear on the Olympian terracottas; and these designs are frequently repeated in the sculptures themselves. The feathers of Typhon's wings are conventionally represented by a scale-pattern; the arc of the scales has been drawn with compass; we observe still the hole left in the centre by the leg of the compass. The larger pinions at the ends of the wings have been outlined regularly by incised lines, and then filled up with color. All this is as like the treatment of vase-figures, as it is unlike anything else in plastic art. In the former the scale-pattern is used conventionally to denote almost anything. Fragments of vases found on the Acropolis itself picture wings in just this way; or it may be Athena's aegis, the fleece of a sheep or the earth's surface that is so represented. On the body of the Triton and the Echidna of the pediments no attempt is made to indicate movement and contortion by the position of the scales; it is everywhere the lifeless conventionality of archaic vase-drawing. In sculptured representations the scale device is dropped, and with it the rigid regularity in the ordering of the pinions. Further, in drawing the scales of the Triton, the artist has dropped usual patterns and copied exactly a so-called bar-ornament which decorates the cornice just over the pediment. Here again he chooses one of the most common motives on vases. For the body of the Echidna, on the other hand, it is the so-called lattice-work pattern which represents the scale covering,—a pattern employed in vases for the most varied purposes, and found on the earliest Cypriote pottery. Even the roll of the snake-bodies of Typhon seems to follow a conventional spiral which we find on old Rhodian ware.

²² *Ibid.*, No. 237.

The outlining and coloring of the figures is most interesting. The poros stone of the reliefs is so soft that it could easily be worked with a knife; so incised lines are constantly used, and regular geometrical designs traced. Quite an assortment of colors is employed: black, white, red, dark brown, apparent green, and in the Typhon group, blue. It is very noticeable that these reliefs, unlike the others which in general furnish the closest analogies, the metopes of the temple at Selinous and the pediment of the Megarian Treasury at Olympia, have the ground unpainted. This is distinctly after the manner of the oldest Greek pottery and of archaic wall paintings. Herein they resemble also another archaic pedimental relief, found near the old temple of Dionysos at Athens, and representing just such a procession of satyrs and mænads as appears so often on vases.

To give a local habitation to the class of pottery which most nearly influenced the artist of these reliefs, is not easy. Perhaps it is a reasonable conjecture to make it Kamiros of Rhodes. Kamiros ware shows just such an admixture of oriental and geometrical designs as characterizes our pediments. Strange monsters of all kinds are represented there; while in the reliefs before us a goodly number of such monsters are translated to Greek soil.

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PAPERS OF THE AMERICAN SCHOOL OF CLASSICAL
STUDIES AT ATHENS.
THE FRIEZE OF THE CHORAGIC MONUMENT OF
LYSIKRATES AT ATHENS.¹

[PLATE II-III.]

The small circular Corinthian edifice, called among the common people the Lantern of Diogenes,² and erected, as we know from the inscription³ on the architrave, to commemorate a choragic victory won by Lysikrates, son of Lysitheides, with a boy-chorus of the tribe Akamantis, in the archonship of Euainetos (B. C. 335/4), has long been one of the most familiar of the lesser remains of ancient Athens. The monument was originally crowned by the tripod which was the prize of the successful chorus, and it doubtless was one of many buildings of similar character along the famous "Street of Tripods."⁴ It is the aim of this paper to show, that the earliest publications of the sculptured reliefs on this monument have given a faulty representation of them, owing to the transposition of two sets of figures; that this mistake has been repeated in most subsequent publications down to our day; that inferences deduced therefrom have in so far been vitiated; and that new instructive facts concerning Greek composition in sculpture can be derived from a corrected rendering of the original.

Although we are not now concerned either with the subsequent fortunes of the monument and the story of its preservation, or with its architectural features and the various attempts which

¹ It is a pleasure to acknowledge my obligations to the Director of the School, Dr. Waldstein, who has kindly assisted me in the preparation of this paper by personal suggestions.

² This does not exclude the tolerably well-attested fact, that the name "Lantern of Diogenes" formerly belonged to another similar building near by, which had disappeared by 1676. ³ *C. I. G.* 221. ⁴ *Cf. PAUS.*, I, 20, 1.

have been made to restore the original design, it may be convenient to recall briefly a few of the more important facts pertaining to these questions. The Monument of Lysikrates first became an object of antiquarian interest in 1669, when it was purchased by the Capuchin monks, whose mission had succeeded that of the Jesuits in 1658, and it was partially enclosed in their *hospitium*.⁵ The first attempt to explain its purpose and meaning was made by a Prussian soldier, Johann Georg Transfeldt, who, after escaping from slavery in the latter part of 1674, fled to Athens, where he lived for more than a year.⁶ Transfeldt deciphered the inscription, but was unable to decide whether the building was a "*templum Demosthenis*" or a "*Gymnasium a Lysikrate * * * exstructum propter juventutem Atheniensem ex tribu Aca-mantia.*"⁷ Much more important for the interpretation of the monument was the visit of Dr. Jacob Spon of Lyons, who arrived at Athens early in the year 1676. Spon also read the inscription,⁸ and, from a comparison with other similar inscriptions, determined the true purpose of edifices of this class.⁹ Finally the first volume of Stuart and Revett's *Antiquities of Athens*, which appeared in 1762, confirmed, corrected and extended Spon's results. Careful and exhaustive drawings accompanied the description of the monument.

In the latter part of the eighteenth and the early part of the nineteenth century, Athens was visited by many strangers from western Europe, and the hospitable convent of the Capuchins and the enclosed "Lantern," which at this time was used as a closet for books, acquired some notoriety. Late in the year 1821, however, during the occupation of Athens by the Turkish troops under Omer Vrioni, the convent was accidentally burned, and its most precious treasure was liberated, to be sure, but, as may still be seen, sadly damaged by the fire, and what was still more unfortunate, left unprotected and exposed to the destructive mischief of Athenian street-arabs and their less innocent elders.

Aside from some slight repairs and the clearing away of rubbish, the monument remained in this condition until 1867, when the

⁵ SPON, *Voyage*, II, p. 244; LABORDE, *Athènes*, I, p. 75 and note 2.

⁶ MICHAELIS, *Mitth. Athen.*, I, p. 103.

⁷ *Mitth. Athen.*, I, p. 114.

⁸ SPON, III, 2, p. 21 f.

⁹ SPON, II, p. 174.

French Minister at Athens, M. de Gobineau, acting on behalf of his government, into whose possession the site of the former monastery had fallen, employed the architect Boulanger to make such restorations as were necessary to save the monument from falling to pieces.¹⁰ At the same time the last remains of the old convent were removed, and some measures taken to prevent further injury to the ruin. Repairs were again being made under the direction of the French School at Athens, when I left Greece, in April, 1892.

For the architectural study of the monument of Lysikrates little has been done since Stuart's time. In the year 1845 and in 1859, the architect Theoph. Hansen made a new series of drawings from the monument, and upon them based a restoration which differs somewhat from that of Stuart, especially in the decoration of the roof. This work is discussed in the monograph of Von Lützow.¹¹

Confining our attention to the sculptures of the frieze, we will examine certain inaccuracies of detail which have hitherto prevailed in the treatment of this important landmark in the history of decorative reliefs of the fourth century. The frieze, carved in low relief upon a single block of marble, runs continuously around the entire circumference of the structure. Its height is only .012 m. (lower, rectangular moulding) + .23 m. (between mouldings) + .015 m. (upper, rounded moulding).¹² It is to be noticed that the figures rest upon the lower moulding, while they are often (in fourteen cases) carried to the top of the upper moulding.

The question as to the subject of the relief was a sore puzzle to the early travellers. Père Babin finds "*des dieux marins*";¹³ Transfeldt, "*varias gymnasticorum figuras*," which he thought represented certain games held "*in Aegæa insula*" in honor of Demosthenes.¹⁴ Vernon (1676), who regarded the monument as a temple of Hercules, sees his labors depicted in the sculptures of the frieze.¹⁵ Spon, while not accepting this view, admitted that some, at least, of the acts of Herakles were represented; so that the building, apart from its monumental purpose, might also have been sacred

¹⁰ VON LÜTZOW, *Zeitschr. für bildende Kunst*, III, pp. 23, 236 f.

¹¹ Pp. 239 ff., 264 ff. For another restoration of the roof cf. SEMPER, *Der Stil*, vol. II, p. 242.

¹² My own measurements.

¹³ WACHSMUTH, *Die Stadt Athen*, I, p. 757.

¹⁴ *Mith. Athen.*, I, p. 113.

¹⁵ LABORDE, I, pp. 249 f.

to that deity.¹⁶ To Stuart and Revett¹⁷ is due the credit of being the first to recognize in these reliefs the story of Dionysos and the pirates, which is told first in the Homeric Hymn to Dionysos. In the Homeric version, Dionysos, in the guise of a fair youth with dark locks and purple mantle, appears by the sea-shore, when he is espied by Tyrrhenian pirates, who seize him and hale him on board their ship, hoping to obtain a rich ransom. But when they proceed to bind him the fetters fall from his limbs, whereupon the pilot, recognizing his divinity, vainly endeavors to dissuade his comrades from their purpose. Soon the ship flows with wine; then a vine with hanging clusters stretches along the sail-top, and the mast is entwined with ivy. Too late the marauders perceive their error and try to head for the shore; but straightway the god assumes the form of a lion and drives them, all save the pious pilot, terror-stricken into the sea, where they become dolphins.

In the principal post-Homeric versions, the Tyrrhenians endeavor to kidnap Dionysos under pretext of conveying him to Naxos, the circumstances being variously related. Thus in the *Naξιακά* of Aglaosthenes (*apud* HYGIN. Poet. Astronom. II. 17), the child Dionysos and his companions are to be taken to the nymphs, his nurses. According to Ovid,¹⁸ the pirates find the god on the shore of Chios, stupid with sleep and wine, and bring him on board their vessel. On awaking he desires to be conveyed to Naxos, but the pirates turn to the left, whereupon, as they give no heed to his remonstrances, they are changed to dolphins and leap into the sea. Similarly Servius, *Ad. Verg. Aen.*, I. 67. In the *Fabulae* of Hyginus (cxxxiv), and in Pseudo-Apollodorus,¹⁹ Dionysos engages passage with the Tyrrhenians. Nonnus, however, returns to the Homeric story, which he has modified, extended, and embellished in his own peculiar way.²⁰ These versions, to which may be added that of Seneca,²¹ all agree in making the scene take place on ship-board, and, if we except the "*comites*" of Aglaosthenes, in none of them is the god accompanied by a retinue of satyrs. But Philostratus²² pretends to describe a painting, in which two ships are

¹⁶ SPON, II, p. 175.

¹⁸ *Met.*, III. 605 ff.

²⁰ *Dionys.*, XLV. 119 ff.

²² *Imag.*, I. 19.

¹⁷ I, p. 27.

¹⁹ *Bibliotheca*, III. 5. 3.

²¹ *Oedipus*, vv. 455-473.

portrayed, the pirate-craft lying in ambush for the other, which bears Dionysos and his rout.

In our frieze, however, the myth is represented in an entirely different manner. The scene is not laid on shipboard, but near the shore of the sea, where, as the action shows, Dionysos and his attendant satyrs are enjoying the contents of two large craters, when they are attacked by pirates. The satyrs who are characterized as such by their tails, and in most cases (9 + 2 : 7) by the panther-skin, forthwith take summary vengeance upon their assailants, of whom some are bound, others beaten and burned, while others take refuge in the sea, only to be changed into dolphins by the invisible power of the god.

These modifications of the traditional form of the story have usually²³ been accounted for by the necessities of plastic art; and this view has in its favor that the representation in sculpture of any of the other versions which are known to us, would be attended by great difficulties of composition, and would certainly be much less effective. Reisch, however, has suggested²⁴ that this frieze illustrates the dithyrambus which won the prize on this occasion, and that the variations in the details of the story are due to this. There is no evidence for this hypothesis, inasmuch as we have no basis upon which to found an analogy, and know nothing whatever of the nature of the piece in which the chorus had figured.

The general arrangement and technic of this relief, the skill with which unity of design is preserved despite the circular form, the energy of the action, and the variety of the grouping, have often been pointed out. More particularly, the harmony and symmetry, which the composition exhibits, have been noticed by most of the later writers who have had occasion to describe the frieze. It is here, however, that we find the divergencies and inaccuracies which have been alluded to above, and these are such as to merit a closer examination.

To begin with the central scene, which is characterized as such by the symmetrical grouping of two pairs of satyrs about the god

²³ E. g. OVERBECK, *Plastik*,³ II. p. 92; Friedrichs-Wolters, *Bausteine*, p. 488.

²⁴ *Griech. Weihgeschenke*, p. 102.

Dionysos and his panther and is externally defined by a crater at either side, we observe that, while the two satyrs immediately to the right (1') and left (1) of Dionysos (0), correspond in youth and in their attitude toward him, the satyr at the left (1) has a thyrsus and a mantle which the other does not possess. These figures have unfortunately suffered much; the central group is throughout badly damaged, the upper part of the body and the head of Dionysos especially so. Of the tail of the panther as drawn in Stuart's work, no trace exists. The faces of the two satyrs and the head of the thyrsus are also much mutilated. The other two satyrs (11:11'), whose faces are also mutilated, correspond very closely in youth, action, and nudity. In these two pairs of figures it is also to be noticed that the heads of 1 and 11 at the left face the central group, while the heads of 1' and 11' at the right are turned away from the centre, toward the right. By this device the sculptor has obviated any awkwardness which might arise from the necessity of placing Dionysos in profile.

Passing now to the scenes outside of the vases, we observe that, of the first pair of satyrs, the bearded figure at the left (111), leans upon a tree-stump, over which is thrown his panther-skin, as he contemplates the contest between his fellows and the pirates, while against his right side rests a thyrsus. The corresponding satyr on the right (111'), also bearded, but with his head now nearly effaced, wears his mantle slung over the left shoulder as he advances to the right, offering with his right hand the freshly filled wine-cup to a youthful companion (1v'). The latter, with panther-skin over left shoulder and arm, and club (partially effaced) in outstretched right hand, is moving rapidly to the right, as if to join in the battle; his face (also somewhat mutilated) is partly turned to the left, and despite his attitude of refusal he forms a sort of group with his neighbor on that side (111'), and has no connection, as has been wrongly assumed,²⁵ with the following group to the right (1v'). Corresponding with this youthful satyr, we have on the left (1v) a nude bearded satyr (face somewhat damaged,) armed with a torch instead of a club, moving swiftly to the left to take part in the contest. He has no group-relation with his

²⁵ *British Museum Marbles*, 1x, p. 114.

neighbor on the right (III), although he may be supposed to have just left him. The relation is not sufficiently marked in the case of the corresponding figures on the other side (III', IV') to injure the symmetry.

These two pairs of satyrs serve to express the transition from the untroubled ease of Dionysos and his immediate attendants, to the violence and confusion of the struggle. Thus the first pair (III : III') seem to feel that their active participation is unnecessary, and so belong rather to the central scene; while the second pair (IV : IV'), hurrying to the combat, are to be reckoned rather with those who are actively engaged. This is also emphasized by the symmetrical alternation of young and old satyrs, *i. e.* :

{ old young old young old young
 { via vb iv iv' v'b vi'b

and by their correspondence to VII : VII'.

On the left side we have next a group, turned toward the right, consisting of a young satyr with flowing panther-skin (vb), who places his left knee on the back of a prostrate pirate (va) whom he is about to strike with a club which he holds in his uplifted right hand. The pirate (face now somewhat damaged) is, like all of his fellows, youthful and nude. The corresponding group on the right, faces the left, and represents a nude bearded satyr (v'b,) with left knee on the hip of a fallen pirate (v'a), whose hands he is about to bind behind his back. Thus the arrangement of the two groups corresponds, but the action is somewhat different.

I now wish to point out an error which is interesting and instructive as illustrating how mistakes creep into standard archæological literature to the detriment of a proper appreciation of the original monuments; and I may perhaps hope not only to correct this error once for all, but also, in so doing, to make clearer certain noteworthy artistic qualities of this composition.

If we turn to the reproductions of the Lysikrates frieze in the common manuals of Greek sculpture, we find that the group (v') has exchanged places with the next group to the right (vi') while the corresponding groups on the left side (v, vi) retain their proper position. In order to detect the source of this confusion, we have only to examine the drawings of Stuart and Revett, from which nearly all the subsequent illustrations are more or less directly

derived. In the first volume of Stuart and Revett, the groups (v¹, iv¹) occupy plates XIII and XIV, and it is evident that the drawings have been in some way misplaced. These plates have been reproduced on a reduced scale in Meyer's *Gesch. d. bildenden Künste*²⁶ (1825); Müller-Wieseler²⁷ (1854); Overbeck,²⁸ *Plastik*³ (1882); W. C. Perry, *History of Greek Sculpture*²⁹ (1882); Mrs. L. M. Mitchell, *History of Ancient Sculpture*; ³⁰ Baumeister, *Denkmäler*³¹ (1887); Harrison and Verrall, *Ancient Athens*³² (1890), and in all with the same misarrangement.

Nevertheless correct reproductions of the frieze, derived from other sources, have not been wholly lacking. There is, for example, a drawing of the whole monument by S. Pomardi in Dodwell's *Tour through Greece*³³ (1819), in which the correct position of these groups is clearly indicated. In 1842 appeared volume IX of the *British Museum Marbles* containing engravings of a cast made by direction of Lord Elgin, about 1800.³⁴ Inasmuch as this cast or similar copies have always been the chief sources for the study of the relief, owing to the unsatisfactory preservation of the original, it is the more strange that this mistake should have remained so long uncorrected,³⁵ or that Müller-Wieseler should imply³⁶ that their engraving was corrected from the British Museum publication, when no trace of such correction is to be found. A third drawing in which the true arrangement is shown, is the engraving after Hansen's restoration of the whole monument, published in Von Lützow's monograph³⁷ (1868). Although Stuart's arrangement violates the symmetry maintained between the other groups of the frieze, yet Overbeck³⁸ especially commends the symmetry shown in the composition of these portions of the relief.

²⁶ *Tafel* 25. ²⁷ *1 Taf.* 37. ²⁸ II, p. 91. ²⁹ P. 474. ³⁰ P. 487. ³¹ II, p. 841. ³² P. 248. ³³ I, opposite p. 289.

³⁴ H. MEYER, *Gesch. der bildenden Künste*, II, p. 242, note 313.

³⁵ Since I first noticed the error from study of the original monument, it gives me pleasure to observe that Mr. Murray in his *History of Greek Sculpture*, II, p. 333, note, has remarked that there is a difference between Stuart's drawing and the cast, without, however, being able to determine positively which is correct, owing to lack of means of verification. He was inclined to agree with the cast.

³⁶ I, *Taf.* 37, note 150: *Mit Berücksichtigung der Abbildungen nach später genommenen Gypsabgüssen in Ancient Marbles in the Brit. Mus.*

³⁷ Between pp. 240 and 241.

³⁸ *Plastik*³, II, p. 94.

Now let us examine the symmetry as manifested in the corrected arrangement. After the figures which we have found to have a thoroughly symmetrical disposition, we have on the left side a group consisting of a bearded satyr (face damaged), with panther-skin (vi a), about to strike with his thyrsus a pirate kneeling at the left (vi b), with his hands bound behind his back. The face of this figure is also somewhat injured. The corresponding group on the right (vi¹ instead of the erroneous v¹), represents a youthful satyr with panther-skin thrown over his arm (vi¹ a), about to strike with the club which he holds in his uplifted right hand, a pirate (vi¹ b), who has been thrown on his back, and raises his left arm, partly in supplication and partly to ward off the blow. As in the groups v:v¹, so in vi:vi¹, persons, action, and arrangement, are closely symmetrical, while a graceful variety and harmony is effected by so modifying each of these elements as to repeat scarcely a detail in the several corresponding figures.

After these five fighters, we observe on the left a powerful bearded satyr (face much injured), with flowing panther-skin, facing the right, and wrenching away a branch from a tree (vii). The corresponding figure on the right side (vii¹) is a nude, bearded satyr, who is breaking down a branch of a tree. At first the correspondence does not seem to be maintained, for this satyr faces the right, whereas after the analogy of figures vii and iv we might expect him to face the left. But a closer examination shows that this lack of symmetry is apparent only when figures vii:vii¹ are considered individually, and apart from the scenes to which they belong. For while iv and vii, the outside figures of the main scene on the left, appropriately face each other, the figures iv¹ and vii¹, which occupy the same position with regard to the chief scene on the right, are placed so as to face in opposite directions. By this subtle device, for which the relation between the figures iii¹ and iv¹ furnishes an evident motive, the sculptor has contrived to indicate distinctly the limits of these scenes, while the symmetry existing between them is heightened and emphasized by the avoidance of rigid uniformity.

The trees serve also to mark the end of the preceding scenes, and to contrast the land, upon which they stand, with the sea, of which we behold a portion on either side, while a pair of cor-

responding, semi-human dolphins (VIII : VIII¹) are just leaping into the element which is to form their home. These dolphins are not quite accurately drawn in Stuart and Revett, for what appears as an under jaw is, as Dodwell²⁹ rightly pointed out, a fin, and their mouths are closed; the teeth, which are seen in Stuart's drawing and all subsequent reproductions of it, do not exist on the monument. The correct form of the head may be seen in the British Museum publication.

After these dolphins, we have on each side another piece of land succeeded again by a stretch of sea. On these pieces of land are seen on each side two groups of two figures each, while a third incipient dolphin (0¹), which does not stand in group-relation with any of the other figures, leaps into the sea between them. In these groups there is a general correspondence, but it does not extend to particular positions or to accessories.

At the left we observe first a bearded satyr with torch and flowing panther-skin (IX a), pursuing a pirate, who flees to the left (IX b). The space between the satyr and his victim is in part occupied by a hole, which was probably cut for a beam at the time when the monument was built into the convent. In the corresponding places on the right side, we have a bearded satyr with panther-skin (IX¹ a), about to strike with the forked club which he holds in his uplifted right hand, a seated and bound pirate (IX¹ b), whose hair the satyr has clutched with his left hand. The heads of both figures are considerably damaged, and the lower part of the right leg of the pirate is quite effaced. To return to the left side, the tree at the left of the fleeing pirate (IX b), does not correspond with any thing on the right side. It serves to indicate the shore of the sea, while on the other side this is effected by the high rocks upon which the pirate (X¹ b) is seated.

The next group on the left is represented as at the very edge of the water, and consists of a nude bearded satyr (X b), who is dragging an overthrown pirate (X a) by the foot, with the evident intention of hurling him into the sea. The legs and the right arm of this pirate have been destroyed by another hole, similar to that which is found between figures IX and IX a. On the right side, a

²⁹ I, p. 290.

bearded satyr, with flowing panther-skin ($x^1 a$) rushes to the right, thrusting a torch into the face of a pirate who is seated on a rock ($x^1 b$), with his hands bound behind his back. In his shoulder are fastened the fangs of a serpent, which is in keeping here as sacred to Dionysos. Perhaps, as Stuart has suggested,⁴⁰ he may be a metamorphosis of the cord with which the pirate's hands are bound; but the sculptor has not made this clear. The figures of this group, which were in tolerable preservation at the time when Lord Elgin's cast was made, have since been nearly effaced, particularly the face, legs and torch of the satyr, and the face and legs of the pirate, also the rocks upon which he is seated, and the serpent. Between these figures and the following dolphin, there is a third hole, similar to those mentioned already, and measuring 15 x 16 centimetres.

The less rigid correspondence of these groups (x , ix : ix^1 , x^1), has caused some difficulty. In the text of the *British Museum Marbles*,⁴¹ all that falls between the pair of dolphins ($viii$: $viii^1$), is regarded as belonging to a separate composition, grouped about the single dolphin (0^1). But such an interpolated composition, besides having no purpose in itself, would vitiate the unity of the entire relief. For, although the circular form is less favorable to a strongly marked symmetry than is the plane, at least in compositions of small extent, still the individual figures and groups must bear some relation to a common centre, and there can be no division of interest, or mere stringing together of disconnected figures or groups of figures. Such a stringing together is assumed by Mr. Murray, when, in his *History of Greek Sculpture*,⁴² he speaks of seven figures after the pair of dolphins, which, "though without direct responson among themselves, still indicate the continued punishment of the pirates." In the pirate seated on the rocks ($x b$), however, Mr. Murray⁴³ finds what he calls a "sort of echo" of Dionysos, inasmuch as he is seated in a commanding position, and is attacked by the god's serpent. There is, to be sure, a certain external resemblance in the attitudes of the two figures, but direct connection cannot be assumed without separating $x^1 a$

⁴⁰ 1, p. 34. Stuart cites Nonnus, *Dionys.* XLV. 137. Cf. also *Ancient Marbles in the British Mus.* ix. p. 115.

⁴¹ ix, p. 115.

⁴² ii, p. 333.

⁴³ ii, p. 332.

from $x^1 b$, with which, however, it obviously forms a group, and entirely disregarding the relations which the groups x , $ix:ix^1$, x^1 bear to one another and to the dolphin 0^1 . And this Mr. Murray does, when he takes seven figures, among which $x^1 b$ is evidently to be considered as central instead of what is plainly four groups of two figures each, *plus* one dolphin.

There is, as we have already said, a general correspondence between these groups. This is effected in such a way that the group ix resembles x^1 in action and arrangement, rather than 9^1 , which, on the other hand, resembles group x , rather than group ix . In other words, the diagonalism which we have noticed above in the arrangement of young and old satyrs ($vi a$, $v b$, $iv:iv^1$, $v^1 b$, $vi^1 a$), is extended here to the groups themselves.

Moreover, the stretches of sea with the paired dolphins ($viii: viii^1$), which are introduced between these groups and those which had preceded, are not to be regarded as separating the composition into two parts, but as connecting the central scene with similar scenes in a different locality. These scenes are again joined by another stretch of sea with the single dolphin (0^1), which thus forms the centre of the back of the relief, opposite Dionysos, and the terminus of the action which proceeds from the god toward either side.

I do not mean to say, however, that these scenes beyond the dolphins ($viii: viii^1$), are to be looked upon as a mere repetition of those which have preceded, distinguished only by greater license in the symmetry, or that the changes of locality have no other purpose than to lend variety to the action. On the contrary, if we examine the indications of scenery in this relief, we see that those features by which the artist has characterized the place of this part of the action as the seashore, the trees near the water's edge, the alternating stretches of land and sea, the dolphins, the satyr pulling the pirate into the water (x), are confined to the space beyond the trees. In the scenes on the other side of the trees, there is not only no suggestion of the sea, but the rocks and the sequence of figures up to Dionysos indicate rather that his place of repose is some elevation near the seashore. The contrast between the more peaceful and luxurious surroundings of the god and the violent contest with the pirates, is thus carried out and enforced

by the sculptural indications of landscape, as well as by the leading lines of the composition. Though I would not imply that the composition of this frieze was in any way governed by the laws which rule similar compositions in pediments, it is interesting and instructive to note that the general principles of distribution of subject which have been followed, are somewhat similar to those which we can trace in the best-known pediments extant; thus, as the god in his more elevated position would occupy the centre of the pediment, so the low-lying seashore and the scenes which are being enacted upon it correspond to the wings at either side.

To recapitulate, the concordance of figures in this relief is then briefly as follows: In the central scene, *i. e.*, inside the vases, and in the first pair of transitional figures (III, II, I:I', II', III'), equality of persons, but not of accessories (drapery, thyrsi); action symmetrical. In the immediately adjacent scenes, including the second pair of transitional figures and the satyrs at the trees (VII, VI, V, IV:IV', V', VI', VII'), the persons are diagonally symmetrical in VI a, V b, IV:IV', V' b, VI' a (*i. e.*, old, young, old: young, old, young), equal in VII:VII'. The drapery is diagonally symmetrical in V b, IV:IV', V' b (*i. e.*, panther-skin, nudity: panther-skin, nudity), equal in VI a:VI' a, not symmetrical in VII:VII', and the weapons are not symmetrical, except in VII:VII' (*i. e.*, thyrsus, club, torch: club, no weapon, club). The action is symmetrical throughout, although not exactly the same in V:V'. In the scenes beyond the dolphins, the persons are equivalent (X, IX:IX', X'), while the action, drapery and weapons are harmonious, but not diagonally symmetrical (*i. e.*, IX a = X' a, but X b < IX' a). At the left, a tree, at the right, a pile of rocks and a serpent.—The persons are, accordingly, symmetrical throughout; the action is so until past the dolphins (VIII:VIII'); the drapery only in II:II', and in VI, V, IV:IV', V', VI'; and the weapons not at all.

It is thus apparent that the correspondence of the figures in this frieze is by no means rigid and schematic or devoid of life, but that, on the contrary, the same principles of symmetry obtain which have been pointed out by many authorities as prevalent in Greek art.⁴⁶ The whole composition exhibits freedom and

⁴⁶ Cf. Brunn, *Bildwerke des Parthenon*; Flach, *Zum Parthenonfries* pp. 65 ff.; and Waldstein, *Essays on the Art of Pheidias*, pp. 80 f., 114 ff., 153 ff., 194 f., 205, 210.

elasticity, not so indulged in as to produce discord, but peculiarly appropriate to the element of mirth and comedy which characterizes the story, and upon which the sculptor has laid especial stress.

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PAPERS OF THE AMERICAN SCHOOL OF CLASSICAL
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DIONYSUS ἐν Ἀθήναις.*

The dispute over the number of Dionysiac festivals in the Attic calendar, more particularly with regard to the date of the so-called Lenaea, is one of long duration.¹ Boeckh maintained that the Lenaea were a separate festival celebrated in the month Gamelio. To this opinion August Mommsen in the *Heortologie* returns; and maintained as it is by O. Ribbeck,² by Albert Müller,³ by A. E. Haigh,⁴ and by G. Oehmichen,⁵ it may fairly be said to be the accepted theory to-day. This opinion, however, is by no means universally received. For example, O. Gilbert⁶ has attempted to prove that the country Dionysia, Lenaea, and Anthesteria were only parts of the same festival.

But while the date of the so-called Lenaea has been so long open to question, until recently it has been universally held that some portion at least of all the festivals at Athens in honor of the wine-god was held in the precinct by the extant theatre of Dionysus. With the ruins of this magnificent structure before the eyes, and no other theatre in sight, the temptation was certainly a strong one to find in this neighborhood the Limnae mentioned in the records of the ancients. When Pervanoglu found a handful of rushes in the neighborhood of the present military hospital, the matter seemed finally settled. So, on the maps and charts of

* I wish to express my hearty thanks to Prof. U. von Wilamowitz-Möllendorff of the University of Göttingen, Prof. R. Schöll of the University of Munich, Prof. A. C. Merriam of Columbia College, and Dr. Charles Waldstein and Prof. R. B. Richardson, Directors of the American School at Athens, for many valuable criticisms and suggestions.

¹ *Vom Unterschied der Lenäen, Anthesterien und ländlichen Dionysien, in den Abhdl. der k. Akad. der Wiss. zu Berlin, 1816-17.*

² *Die Anfänge und Entwicklung des Dionysoscultus in Attika.*

³ *Bühnen-Alterthümer.*

⁴ *The Attic Theatre.*

⁵ *Das Bühnenwesen der Griechen und Römer.*

⁶ *Die Festzeit der Attischen Dionysien.*

Athens we find the word *Limnae* printed across that region lying to the south of the theatre, beyond the boulevard and the hospital. When, therefore, *Mythology and Monuments of Athens*, by Harrison and Verrall, appeared over a year ago, those familiar with the topography of Athens as laid down by Curtius and Kaupert were astonished to find, on the little plan facing page 5, that the Limnae had been removed from their time-honored position and located between the Coloneus Agoraeus and the Dipylum. That map incited the preparation of the present article.

While investigating the reasons for and against so revolutionary a change, the writer has become convinced that here, Dr. Dörpfeld, the author of the new view, has built upon a sure foundation. How much in this paper is due to the direct teaching of Dr. Dörpfeld in the course of his invaluable lectures *An Ort und Stelle* on the topography of Athens, I need not say to those who have listened to his talks. How much besides he has given to me of both information and suggestion I would gladly acknowledge in detail; but as this may not always be possible, I will say now that the views presented here after several months of study, in the main correspond with those held by Dr. Dörpfeld. The facts and authorities here cited, and the reasoning deduced from these, are, however, nearly all results of independent investigation. So I shall content myself in general with presenting the reasons which have led me to my own conclusions; for it would require a volume to set forth all the arguments of those who hold opposing views.

The passage Thucydides, II. 15, is the authority deemed most weighty for the placing of the Limnae to the south of the Acropolis. The question of the location of this section of Athens is so intimately connected with the whole topography of the ancient city, that it cannot be treated by itself. I quote therefore the entire passage:

τὸ δὲ πρὸ τούτου ἡ ἀκρόπολις ἡ νῦν οὖσα πόλις ἦν, καὶ τὸ ὑπ' αὐτὴν πρὸς νότον μάλιστα τετραμμένον. τεκμήριον δὲ· τὰ γὰρ ἱερά ἐν αὐτῇ τῇ ἀκροπόλει καὶ ἄλλων θεῶν ἐστὶ, καὶ τὰ ἔξω πρὸς τοῦτο τὸ μέρος τῆς πόλεως μᾶλλον ἴδρυται, τό τε τοῦ Διὸς τοῦ Ὀλυμπίου, καὶ τὸ Πύθιον, καὶ τὸ τῆς Γῆς, καὶ τὸ ἐν Λίμναις Διονύσου, ᾧ τὰ ἀρχαιότερα Διονύσια τῇ δωδεκάτῃ ποιεῖται ἐν μηνὶ Ἀνθεστηριῶνι· ὥσπερ καὶ οἱ ἀπ' Ἀθηναίων Ἴωνες ἔτι καὶ νῦν νομίζουσιν. ἴδρυται δὲ καὶ ἄλλα ἱερά

ταύτη ἀρχαία. καὶ τῇ κρήνῃ τῇ νῦν μὲν τῶν τυράννων οὕτω σκευασάντων Ἑννεακρόνῳ καλουμένη, τὸ δὲ πάλαι φανερῶν τῶν πηγῶν οὐσῶν Καλλιρρόῃ ὠνομασμένη, ἐκείνῃ τε ἐγγὺς οὔσῃ τὰ πλείστου ἀξία ἐχρῶντο, καὶ νῦν ἔτι ἀπὸ τοῦ ἀρχαίου πρό τε γαμικῶν καὶ ἐς ἄλλα τῶν ἱερῶν νομίζεται τῷ ὕδατι χρῆσθαι.

Two assumptions are made from this text by those who place the Limnae by the extant theatre. The first is that ὑπ' αὐτήν includes the whole of the extensive section to the south of the Acropolis extending to the Ilissus, and reaching to the east far enough to include the existing Olympieum, with the Pythium and Callirrhoe, which lay near. The second assumption is that these are the particular localities mentioned under the τεκμήριον δὲ. Let us see if this is not stretching ὑπ' αὐτήν a little. I will summarize, so far as may be necessary for our present purpose, the views of Dr. Dörpfeld on the land lying ὑπὸ τὴν ἀκρόπολιν, or the Pelasgicum.

That the Pelasgicum was of considerable size is known from the fact that it was one of the sacred precincts occupied when the people came crowding in from the country at the beginning of the Peloponnesian War,⁷ and from the inscription⁸ which forbade that stone should be quarried in or carried from the precinct, or that earth should be removed therefrom. That the Pelasgicum with its nine gates was on the south, west, and south-west slopes, the formation of the Acropolis rock proves, since it is only here that the Acropolis can be ascended easily. That it should include all that position of the hillside between the spring in the Aesculapieum on the south and the Clepsydra on the north-west, was necessary; for in the space thus included lay the springs which formed the source of the water-supply for the fortifications. That the citadel was divided into two parts, the Acropolis proper, and the Pelasgicum, we know.⁹ One of the two questions in each of the two passages from Aristophanes refers to the Acropolis, and the other to the Pelasgicum, and the two are mentioned as parts of the citadel. That the Pelasgicum actually did extend from the Aesculapieum to the Clepsydra we know from Lucian.¹⁰

⁷ THUCYDIDES, II. 17.

⁸ DITTENBERGER, *S. I. G.* 13, 55 ff.

⁹ THUCYDIDES, II. 17; ARISTOPHANES, *Birds*, 829 ff.; *Lysistrata*, 480 ff.

¹⁰ *Piscator*, 42.

The people are represented as coming up to the Acropolis in crowds, filling the road. The way becoming blocked by numbers, in their eagerness they begin to climb up by ladders, first from the Pelasgicum itself, through which the road passes. As this space became filled, they placed their ladders a little further from the road, in the Aesculapieum to the right and by the Areopagus to the left. Still others come, and they must move still further out to find room, to the grave of Talos beyond the Aesculapieum and to the Anaceum beyond the Areopagus. In another passage of Lucian,¹¹ Hermes declares that Pan dwells just above the Pelasgicum; so it reached at least as far as Pan's grotto.

The fortifications of Mycenæ and Tiryns prove that it was not uncommon in ancient Greek cities to divide the Acropolis, the most ancient city, into an upper and a lower citadel.

Finally, that the strip of hillside in question was in fact the Pelasgicum, we are assured by the existing foundations of the ancient walls. A Pelasgic wall extends as a boundary-wall below the Aesculapieum, then onward at about the same level until interrupted by the Odeum of Herodes Atticus. At this point there are plain indications that before the construction of this building, this old wall extended across the space now occupied by the auditorium. Higher up the hill behind the Odeum, and both within and without the Beulé gate, we find traces of still other walls which separated the terraces of the Pelasgicum and probably contained the nine gates which characterized it. Here then we have the ancient city of Cecrops, the city before Theseus, consisting of the Acropolis and the part close beneath, particularly to the south, the Pelasgicum. We shall find for other reasons also that there is no need to stretch the meaning of the words *ὑπ' αὐτὴν πρὸς νότον* to make them cover territory something like half a mile to the eastward, and to include the later Olympieum within the limits of our early city.

Wachsmuth has well said,¹² although this is not invariably true,¹³ that *ὑπὸ τὴν ἀκρόπολιν* and *ὑπὸ τῇ ἀκροπόλει* are used with refer-

¹¹ *Bis Accus*, 9.

¹² *Berichte der philol.-histor. Classe der Königl. Sächs. Gesell. der Wiss.*, 1887, p. 383.

¹³ *Am. Jour. of Archaeology*, III. 38, ff.

ence to objects lying halfway up the slope of the Acropolis. On the next page he adds, however, that Thucydides could not have meant to describe as the ancient city simply the ground enclosed within the Pelasgic fortifications, or he would have mentioned these in the *τεκμήρια*. Thucydides, in the passage quoted, wished to show that the city of Cecrops was very small in comparison with the later city of Theseus; that the Acropolis was inhabited; and that the habitations did not extend beyond the narrow limits of the fortifications. He distinctly says that before the time of Theseus, the Acropolis was the city. He proceeds to give the reasons for his view: The presence of the ancient temples on the Acropolis itself, the fact that the ancient precincts outside the Acropolis were *πρὸς τοῦτο τὸ μέρος τῆς πόλεως*, and the neighborhood of the fountain Enneacrounus. We know, that the Acropolis was still officially called *πόλις* in Thucydides' day; and *πόλις* so used would have no meaning if the Acropolis itself was not the ancient city. *Πρὸς τοῦτο τὸ μέρος*, in the passage quoted, refers to the city of Cecrops, the Acropolis and Pelasgium taken together; and *τῆς πόλεως* refers to the entire later city as it existed in the time of Thucydides. It is, however, in the four temples outside the Acropolis included under the *τεκμήριον δέ* that we are particularly interested. The Pythium of the passage cannot be that Pythium close by the present Olympieum, which was founded by Pisistratus. Pausanias (I. 28, 4,) says: "On the descent [from the Acropolis], not in the lower part of the city but just below the Propylæa, is a spring of water, and close by a shrine of Apollo in a cave. It is believed that here Apollo met Creusa." Probably it was because this cave was the earliest abode of Apollo in Athens that Euripides placed here the scene of the meeting of Apollo and Creusa.

According to Dr. Dörpfeld it was opposite this Pythium that the Panathenaic ship came to rest.¹⁴ In *Ion*, 285, Euripides makes it clear that, from the wall near the Pythium, the watchers looked toward Harma for that lightning which was the signal for the sending of the offering to Delphi. This passage would have no meaning if referred to lightning to be seen by looking toward

¹⁴ PHILOSTRAT. *Vit. Sophist.* II p. 236.

Harma from any position near the existing Olympieum; for the rocks referred to by Euripides are to the northwest, and so could not be visible from the later Pythium. To be sure, in later times the official title of the Apollo of the cave seems to have been ἱπ' ἀκραίῳ or ἐν ἀκραίῳ, but this was only after such a distinction became necessary from the increased number of Apollo precincts in the city. The inscriptions referring to the cave in this manner are without exception of Roman date.¹⁵ From Strabo we learn¹⁶ that the watch looked "toward Harma" from an altar to Zeus Astrapæus on the wall between the Pythium and the Olympieum. This wall has always been a source of trouble to those who place the Pythium in question near the present Olympieum. But this difficulty vanishes if we accept the authority of Euripides, for the altar of Zeus Astrapæus becomes located on the northwest wall of the Acropolis; and from this lofty position above the Pythium, with an unobstructed view of the whole northern horizon, it is most natural to expect to see these flashes from Harma.

The Olympieum mentioned by Strabo and Thucydides cannot therefore be the famous structure begun by Pisistratus and dedicated by Hadrian; we must look for another on the northwest side of the Acropolis. Here, it must be admitted we could wish for fuller evidence. Pausanias (I. 18. 8) informs us that "they say Deucalion built the old sanctuary of Zeus Olympius." Unfortunately he does not say where it was located.

Mr. Penrose in an interesting paper read before the British School at Athens in the spring of 1891, setting forth the results of his latest investigations at the Olympieum, said that in the course of his investigations there appeared foundations which he could ascribe to no other building than this most ancient temple. But Dr. Dörpfeld, after a careful examination of these remains, declares that they could by no possibility belong to the sanctuary of the legendary Deucalion.¹⁷

¹⁵ HARRISON and VERRALL, *Mythology and Monuments*, p. 541.

¹⁶ STRABO, p. 404.

¹⁷ It has been held that Pausanias mentions the tomb of Deucalion, which was near the existing Olympieum, as a proof that Deucalion's temple was also here. Pausanias however merely says in this passage that this tomb was pointed out in his day only as a proof that Deucalion sojourned at Athens.

The abandonment of work on the great temple of the Olympian Zeus from the time of the Pisistratids to that of Antiochus Epiphanes, would have left the Athenians without a temple of Zeus for 400 years, unless there existed elsewhere a foundation in his honor. It is on its face improbable that the citizens would have allowed so long a time to pass unless they already possessed some shrine to which they attached the worship and festivals of the chief of the gods.

The spade has taught us that the literary record of old sanctuaries is far from being complete. The new cutting for the Piræus railroad has brought to light inscriptions referring to a hitherto unknown precinct in the Ceramieus.

Mommsen declares¹⁸ that the Olympia were celebrated at the Olympieum which was begun by Pisistratus; and he adds that the festival was probably established by him. Of the more ancient celebration in honor of Zeus, the Diasia, he can only say surely that it was held outside the city. Certainly we should expect the older festival to have its seat at the older sanctuary.

The *ἔξω τῆς πόλεως*¹⁹, which is Mommsen's authority in the passage referred to above, has apparently the same meaning as the *τὰ ἔξω (τῆς πόλεως)* already quoted from Thucydides; *i. e.*, outside of the ancient city—the Acropolis and Pelasgium. The list of dual sanctuaries, the earlier by the entrance to the Acropolis, the later to the southeast, is quite a long one. We find two precincts of Apollo, of Zeus, of Ge, and, as we shall see later, of Dionysus.

Of Ge Olympia we learn²⁰ that she had a precinct within the enclosure of the later Olympieum. Pausanias by his mention of the cleft in the earth through which the waters of the flood disappeared and of the yearly offerings of the honey-cake in connection with this, shows the high antiquity of certain rites here celebrated. It is indeed most probable that these ceremonies formed a part of the Chytri; for what seems the more ancient portion of this festival pertains also to the worship of those who perished in Deucalion's flood. The worship of Ge *Kourotrophos* goes back to times immemorial. Pausanias mentions²¹ as the last shrines

¹⁸ *Heortologie*, p. 413. ¹⁹ THUCYDIDES 126. ²⁰ PAUS. I. 18. 7.

²¹ PAUS. I. 22. 33. SUIDAS, *κουροτρόφος*.

which he sees before entering the upper city, those of Ge *Kour-otrophos* and Demeter Chloë, which must therefore have been situated on the southwest slope of the Acropolis. Here again near the entrance to the Pelasgic fortification, is where we should expect *a priori* to find the oldest religious foundations "outside the Polis."

The location of the fourth *hieron* of Thucydides can best be determined by means of the festivals, more particularly the dramatic festivals of Dionysus. That the dramatic representations at the Greater Dionysia, the more splendid of the festivals, were held on the site of the existing theatre of Dionysus, perhaps from the beginning, at least from a very early period, all are agreed. Here was the precinct containing two temples of Dionysus, in the older of which was the xoanon²² brought from Eleutherae by Pegasus. That in early times, at least, all dramatic contests were not held here we have strong assurance. Pausanias²³ the lexicographer, mentions the wooden seats in the agora from which the people viewed the dramatic contests before the theatre ἐν Διονύσῳ was constructed—plainly the existing theatre. Hesychius confirms this testimony.²⁴

Bekker's *Anecdota* include mention, also,²⁵ of the wooden seats of this temporary theatre. Pollux adds²⁶ his testimony that the wooden seats were in the agora. Photius gives the further important information that the orchestra first received its name in the agora.²⁷ There can be no doubt that in very early times, there were dramatic representations in the agora in honor of Dionysus; and there must therefore have been a shrine or a precinct of the god in or close to the agora. The possibility of presentation of dramas at Athens, especially in these early times, unconnected with the worship of Dionysus and with some shrine sacred to him, cannot be entertained for a moment. It is commonly accepted

²² PAUS. I. 2, 5 and I. 20, 3.

²³ PAUS., *Lexikog.* ἔκρια· τὰ ἐν τῇ ἀγορᾷ ἀφ' ὧν ἐθεώοντο τοὺς Διονυσιακοὺς ἀγῶνας πρὶν ἢ κατασκευασθῆναι τὸ ἐν Διονύσῳ θέατρον. Cf. EUSTATH. *Comment. Hom.* 1472.

²⁴ HESYCH., ἀπ' αἰγέλων.

²⁵ BEKKER, *Anecdota* p. 354; *ibid.*, p. 419.

²⁶ POLLUX, VII. 125.

²⁷ PHOTIUS, p. 106; *Ibid.*, p. 351.

that dramas were represented during two festivals in Athens,—at the contest at the Lenaeum and at the City Dionysia. The plays of the latter festival were undoubtedly given in the extant theatre; but of the former contest we have an entirely different record. Harpocration says²⁸ merely that the Limnae were a locality in Athens where Dionysus was honored. A reference in Bekker's *Anecdota* is²⁹ more explicit. Here the Lenaeum is described as a place sacred to (ἱερόν) Dionysus where the contests were established before the building of the theatre. In the *Etymologicum Magnum*³⁰ the Lenaeum is said to be an enclosure (περίουλος) in which is a sanctuary of Dionysus Lenaeus. Photius declares³¹ that the Lenaeum is a large peribolus in which were held the so-called contests at the Lenaeum before the theatre was built, and that in this peribolus there was the sanctuary of Dionysus Lenaeus. The scholiast to Aristophanes' *Frogs* says³² that the Limnae were a locality sacred to Dionysus, and that a temple and another building (οἶκος) of the god stood therein. Hesychius mentions³³ the Limnae as a locality where the Lenaea were held, and says that the Lenaeum was a large peribolus within the city, in which was the sanctuary of Dionysus Lenaeus, and that the Athenians held contests in this peribolos before they built the theatre. Pollux speaks³⁴ of the two theatres, καὶ Διονυσιακὸν θέατρον καὶ ληναϊκόν. Stephanus of Byzantium quotes³⁵ from Apollodorus that the "Lenaion Agon" is a contest in the fields by the wine-press. Plato implies³⁶ the existence of a second theatre by stating that Pherecrates exhibited dramas at the Lenaeum. If the Lenaea and the City Dionysia were held in the same locality, it is peculiar that in all the passages concerning the Lenaeum and the Limnae we find no mention of the Greater Dionysia. But our list of authorities goes still further. Aristophanes speaks³⁷ of the con-

²⁸ HARP. ed. Dind. p. 114. l. 14.

²⁹ BEKKER, *Anecdota*, p. 278, l. 8.

³⁰ *Et. Mag.* Ἐν Ἀθηναίῃς.

³¹ PHOTIUS, p. 101.

³² Schol. *Frogs*, 216.

³³ HESYCH., Ἀλμυαί. *Ibid.* ἐν Ἀθηναίῃς ἀγών.

³⁴ POLLUX, IV. 121.

³⁵ STEPH. BYZ., Ἀθήναιος.

³⁶ PLATO, *Protag.*, 327 w.

³⁷ *Achar.*, 202, and schol.

test κατ' ἀγροῦς. The scholiast declares that he refers to the Lenaea, that the Lenaeum was a place sacred (ιερόν) to Dionysus, ἐν ἀγροῖς, and that the word Λήναιον came from the fact that here first stood the ληνός or wine-press. He adds³⁸ that the contests in honor of Dionysus took place twice in the year, first in the city in the spring, and the second time ἐν ἀγροῖς at the Lenaeum in the winter. The precinct by the present theatre, as we know, was sacred to Dionysus Eleuthereus. In this temenos no mention has been found of Dionysus Λίμναιος or Λήναιος.

Demosthenes tells us³⁹ that the Athenians, having inscribed a certain law (concerning the festivals of Dionysus) on a stone stele, set this up in the sanctuary of Dionysus ἐν Λίμναις, beside the altar. "This stele was set up," he continues, "in the most ancient and most sacred precinct"⁴⁰ of Dionysus, so that but few should see what had been written; for the precinct is opened only once every year, on the 12th of the month Anthesterio.

The stele being then visible to the public on but one day of the year it follows that the entire precinct of Dionysus ἐν Λίμναις

³⁸ Schol. Aristoph. Achar., 504.

³⁹ Near. 76.

⁴⁰ I have translated ιερόν by precinct. This is liable to the objection that ιερόν may also mean temple; and ἀνοίγεται "is opened" of the passage may naturally be applied to the opening of a temple. But "hieron" often refers to a sacred precinct, and there is nothing to prevent the verb in question from being used of a "hieron" in this sense. If we consult the passages in which this particular precinct is mentioned we find, in those quoted from Photius and the *Etymologicum Magnum*, that the Lenaeum contains a hieron of the Lenaeon Dionysus. This might be either temple or precinct. In the citation from Bekker's *Anecdota* the Lenaeum is the hieron at which were held the theatrical contests. This implies that the hieron was a precinct of some size. The Scholiast to Achar. 202 makes the Lenaeum the hieron of the Lenaeon Dionysus. Here "hieron" is certainly a precinct. Hesych. (ἐν Ληναιῶν ἀγρόν) renders this still more distinct by saying that the Lenaeum contained the hieron of the Lenaeon Dionysus, in which the theatrical contests were held. But Demosthenes in the *Neaera* declares that the decree was engraved on a stone stele. It was the custom to set up such inscriptions in the open air. This stele was also beside the altar. There were indeed often altars in the Greek temple, but the chief altar (βωμὸς of the passage) was in the open air. Furthermore, if the decree had been placed in the small temple, the designation "alongside the altar" would have been superfluous. But in the larger precinct such a particular location was necessary. Nor can it be urged, in view of the secret rites in connection with the marriage of the King Archon's wife to Dionysus on the 12th of Anthesterio, that hieron must mean temple; since the new Aristotle manuscript tells us that this ceremony took place in the Bucoleum.

must have been closed during the remainder of the year. This could not be unless we grant that, in the time of Demosthenes at least, the Lenaea and the Megala Dionysia were held in different precincts, and that the Lenaea and Anthesteria were one and the same festival.

Pausanias tells us⁴² that the xoanon brought from Eleutherae was in one of the two temples in the theatre-precinct, while the other contained the chryselephantine statue of Alcamenes. We know, both from the method of construction and from literary notices, that these two temples were in existence in the time of Demosthenes. Pausanias says⁴³ that on fixed days every year, the statue of the god was borne to a little temple of Dionysus near the Academy. Pausanias' use of the plural in *τεταγμέναις ἡμέραις* is excellent authority that the temple of the xoanon was opened at least on more than one day of every year.

From all these considerations it seems to be impossible that the precinct of the older temple by the extant theatre and the sanctuary *ἐν Λίμναις* could be the same. The suggestion that the gold and ivory statue of Alcamenes could have been the one borne in procession at the time of the Greater Dionysia is, of course, untenable from the delicate construction of such figures. The massive base on which it stood shows, too, that its size was considerable. The image borne in procession was clearly the xoanon which was brought by Pegasus from Eleutherae.

Wilamowitz calls attention⁴⁴ to another fact. In classic times the contests of the Lenaea are *Διονύσια τὰ ἐπὶ Ἀθηναίων*, and the victories are *νίκαι Ἀθηναϊκαί*; the Megala Dionysia are always *τὰ ἐν ἄστει*, and the victories here *νίκαι ἄστικαί*. These words certainly imply a distinction of place. How early these expressions may have been used, we learn from the account of Thespis. Suidas⁴⁵ is authority that Thespis first exhibited a play in 536 B. C.; and the Parian Marble records⁴⁶ that he was the first to exhibit a drama and to receive the tragic prize *ἐν ἄστει*.

⁴² I. 20. 3.

⁴³ I. 29. 2.

⁴⁴ *Die Bühne des Aeschylos*.

⁴⁵ v. *Thespis*.

⁴⁶ *C. I. G.*, II. 2374.

But it has also been contended that Limnae and Lenaeum do not refer to the same locality. It is clear from what has been said, however, that the Lenaea and the Greater Dionysia must have been held in different localities. So if Limnae and the Lenaeum do not refer at least to the same region, there must have been three separate sanctuaries of Dionysus; for no one will claim that the Greater Dionysia can have been held in the Limnae if the Lenaea were not celebrated there. But as we have seen, Hesychius (v. *Λίμναι*) declares that the Lenaea were held *ἐν Λίμναις*. The scholiast to Aristophanes says⁴⁶ that the Chytri were a festival of Dionysus Lenaeus; so the Chytri as well as the Lenaea must have been celebrated in the Lenaeum. Athenæus in the story of Orestes and Pandion speaks⁴⁷ of the temenos *ἐν Λίμναις* in connection with the Choës. In Suidas (*χόες*), however, we learn that either Limnaeus or Lenaeus could be used in referring to the same Dionysus. Such positive testimony for the identity of the Lenaeum and the sanctuary in the Limnae, cannot be rejected.

We have still more convincing testimony that in the great period of the drama the two annual contests at which dramas were brought out were held in different places, in the record of the time when the wooden theatre *ἐν Λίμναις* was finally given up, and *ὁ ἐπὶ Ἀθηναίῳ ἀγὼν* became a thing of the past. The change comes exactly when we should look for it, when the existing theatre had been splendidly rebuilt by Lycurgus. The passage is in Plutarch, where he says⁴⁸ that this orator also introduced a law that the contest of the comedians at the Chytri should take place in the theatre, and that the victor should be reckoned *εἰς ἄστυ*, as had not been done before. He further implies that the contest at the Chytri had fallen into disuse, for he adds that Lycurgus thus restored an agon that had been omitted. This last authority, however, concerns a contest at the Chytri, the Anthesteria, and is only one of many passages which tend to show that *ὁ ἐπὶ Ἀθηναίῳ ἀγὼν* was held at this festival. The most weighty testimony for making the Lenaea an independent festival, even in historic times, is given by Proclus in a scholium to Hesiod.⁴⁹ He

⁴⁶ *Acharnians* 960.⁴⁷ X, 437 d.⁴⁸ [Plut.] *Vit.* 10 *Or.*: LYCURG. *Orat.* VII. 1. 10 p. 841.⁴⁹ PROCLUS to Hesiod, *Op.* 504.

quotes from Plutarch the statement that there was no month Lenaeo among the Bœotians. He adds that this month was the Attic Gamelio in which the Lenaea were held. Hesychius makes the same citation from Plutarch⁵⁰ as to a non-existence of a Bœotian month Lenaeo, and continues: "But some say that this month is the (Bœotian) Hermaio, and this is true, for the Athenians [held] in this month (*ἐν αὐτῷ*) the festival of the Lenaea." The great similarity of the two passages renders it very probable that both were drawn from the same sources. The omission of Gamelio by Hesychius, by referring the *ἐν αὐτῷ* back to Lenaeo, makes him authority that the Lenaea were held in that month. This, in turn implies that Proclus may have inserted Gamelio in order to bring the statement into relation with the Attic months of his own day. In the authorities referring to this month is a suggestion of several facts and a curious struggle to account for them. Proclus cites Plutarch to the effect that there was no month Lenaeo among the Bœotians, but, being probably misled by the very passage in Hesiod for which he has quoted Plutarch, he adds⁵¹ that they had such a month. He goes on to state that the month is so called from the Lenaea, or from the Ambrosia. Moschopulus,⁵² Tzetzes,⁵³ and the Etymologicum Magnum⁵⁴ repeat this last statement. An inscription⁵⁵ referring to a crowning of Bacchus on the 18th of Gamelio may refer to the same festival. Tzetzes alone is responsible for the statement that the *Pithoigia* came in this month. Through Proclus and Hesychius we are assured of the belief that there was once an Attic month Lenaeo. Proclus, Hesychius and Moschopulus tell us that the Lenaea were at some period held in this month; while Proclus, Moschopulus, Tzetzes, and the inscription assure us that there was another festival of Dionysus in this month; and the first three of these authorities name this festival Ambrosia. A tradition running with such persistency through so many authors affords a strong

⁵⁰ HESYCHIUS, *Ληναίων μῆν.*

⁵¹ PROCLUS, To Hesiod Op. 504.

⁵² MOSCHOPUL., *κατὰ τὸν μῆνα τὸν Ληναίων.*

⁵³ TZETZES, *μῆνα δὲ Ληναίων.*

⁵⁴ *Et. Mag.*, *Ληναίων.*

⁵⁵ *C. I. G.*, I. 523. *Γαμηλιῶτος κεινώσεις Διονύσου θι.*

presumption that there once existed an Attic month Lenaeo, and that the Lenaea were celebrated in that month.

Thucydides tells us⁵⁶ that the Ionian Athenians carried the festival Anthesteria with them from Athens, and that they continued until his day to celebrate it. The Anthesteria are thus older than the Ionic migration, which took place under the sons of Codrus.⁵⁷ The story of Pandion and Orestes from Apollodorus places the establishment of the Choes in the time of this mythical Athenian king. The first and third months of the Ionic year⁵⁸ are the same as those of the Attic. There can hardly be a doubt, then, that their second month, Lenaeo, was also carried with the emigrants from the parent city, where at that time it obtained.

This gives a time, however remote it may be, when the Athenians still had the month Lenaeo, yet we hear of no festival Lenaea among the Ionian cities. It would thus seem that this had lost its force as an independent festival before the migration.

Gamelio is said to have received its name from the Gamelia, the festival of Zeus and Hera. It is hard to believe that while the much more brilliant Lenaea remained in the month, the name

⁵⁶ II. 15.

⁵⁷ BOECKH, *Vom Unterschied der Lena., Anthest. und Dion.* s. 52.

⁵⁸ The entire argument on the question of the month is open to the objection that too much weight is given to such men as Tzetzes and all the tribe of minor scholiasts, whose opportunities for accurate knowledge were, in many respects, vastly inferior to those of scholars of our own day. It is easy indeed to say that their testimony is worth nothing. But where shall we stop? It is urged that the connection of the Lenaea with an Attic month Lenaeo arose from an attempt on the part of the commentators to explain names as they found them. It is said that this conflict of the authorities proves that there never was an Attic Lenaeo. This may be true; and the man who will prove it to be so, and furthermore will give us the accurate history of the Attic and the Ionic calendars, will do a great service to Greek scholarship. But he must have at hand better sources than we possess to-day. Though the later Greek commentators on the classics have made many amusing and stupid blunders, though we need not hesitate to disregard their teaching when it comes into conflict with better authority, or with plain reason, still they have told us that which is true. They often furnish us with all that we know of older and better authors, whose works were their authority. Therefore, unless I have found testimony against them, I have followed their teaching. Both here and elsewhere I give their words for what they are worth; not that I rank Proclus with Thucydides, or the *Et. Mag.* with Aristophanes,—but from the conviction that so remarkable a concurrence of testimony in so many different writers has not yet been successfully explained away, and could not indeed exist unless their testimony were founded on a basis of fact.

should have passed to the always somewhat unimportant Gamelia. What reason could be found for this naming, unless that the Lenaea had first been transferred to the Anthesteria, as all the testimony tends to prove? This supposition gives an easy explanation of the repeated reference to Lenaeo as an Attic month, of the change of the name to Gamelio, and even Tzetzes' association of the Pithoigia with the Lenaea,—an association which arises necessarily, if the Lenaea once formed part of the Anthesteria. The impossibility of transferring in its entirety a festival which has become rooted in the customs of a people, is also seen. That remnant of the Lenaea in Lenaeo, the Ambrosia, survived till quite late in Attic history. It is not difficult, then, to understand why the other references to the Lenaea as a separate festival do not agree as to the month.

A triad of contests is given by Demosthenes⁵⁹ where he quotes the law of Euegoras with reference to the Dionysiac festivals: the one in Piræus with its comedies and tragedies, ἡ ἐπὶ Ληναίῳ πομπή with its tragedies and comedies, and the City Dionysia with the chorus of boys, procession, comedies and tragedies. Here are three different contests in three different places; and the Anthesteria and Lenaea are included under ἡ ἐπὶ Ληναίῳ πομπή. The purpose of the law was to preserve absolute security and freedom to both person and property on the days of the festivals named. Not even an overdue debt could be collected. In so sweeping a law the Anthesteria could hardly fail to be included; for at no Attic festival was there more absolute liberty and equality. In Suidas⁶⁰ we learn that the revellers at the Chytri, going about on carts, jested and made sport of the passers by, and that later they did the same at the Lenaea. Thus he gives another proof of the connection between the two festivals, and shows that ὁ ἐπὶ Ληναίῳ ἀγών became a part of the older Anthesteria after the invention of comedy, and that even then the old custom was kept up. In Athenæus we find⁶¹ the Samian Lynceus sojourning in Athens and commiserated as passing his time listening to the lectures of Theophrastus and seeing the Lenaea and Chytri, in

⁵⁹ *Mid.* 10.

⁶⁰ *SUIDAS*, ἐκ τῶν ἀμαξίων σώματα.

⁶¹ *ATHENÆUS*, IV. p. 130.

contrast to the lavish Macedonian feasts of his correspondent. The latter in the same connection says⁶² that certain men, probably players, who had filled a part in Athens at the Chytri, came in to amuse the guests. The marriage which he is attending then took place after the Chytri. It is not likely, therefore, that in "the Lenaea and Chytri" he is referring to two festivals separated by a month of time. He speaks, rather, of two acts of the same celebration.

The frogs in Aristophanes claim the *temenus* *év* *Alévous* and speak of their song at the Chytri. The scholiast cites⁶³ Philochorus, saying that the contests referred to were the *χύτρινοι*.

A suspected passage in Diogenes Laertius declares (III 56) that it was the custom to contend with tetralogies at four festivals, the Dionysia, Lenaea, Panathenaea, and Chytri. If the passage is worth anything, it adds new testimony that there were dramatic representations at the Anthesteria. The Menander of Alciphron, also, would hardly exclaim⁶⁴ over *πολύς χύτρος*, unless the contest were one in which he, as dramatist, could have a part.

No other of the extant dramas has been so much discussed in connection with the question as the *Acharnians*. Those who hold that the Lenaea and Anthesteria were entirely separate, have affirmed that the play opens on the Pnyx in Athens, that the scene changes to the country-house of Dicaeopolis in Cholleidae, at the season of the country Dionysia in the month Posideo. Later the time of the Lenaea in the month Gamelio is represented. Finally the locality is again Athens at the Anthesteria in Anthesterio. In fact, we are told, the poet has, in the *Acharnians*, shown his true greatness by overleaping all restraints of time and place and giving his fancy free rein. But this is making the *Acharnians* an isolated example among the Greek plays which have come down to us. Changes of scene are foreign to the nature of the Greek drama, as is acknowledged by A. Müller.⁶⁵

That the beginning of the play is on the Pnyx, there is no question. In v. 202, Dicaeopolis declares: "I will go in and

⁶² Ibid. III. 129.

⁶³ Schol. ARIST. *Frogs*. 218.

⁶⁴ Alciphron *Ep.* II. 2. 11.

⁶⁵ *Bühnenalt.*, 161.

celebrate the Country Dionysia." This is held to be a statement of the actual time of year represented in this portion of the play, and also to indicate the change of place from Athens to the country. That the country festivals to the wine-god in the different demes were held on different dates, we learn from the fact that companies of actors went out from Athens to make the tour of these provincial festivals.⁶⁶ We know, too, that these rural celebrations were under charge of the demarchs.⁶⁷ In the passage from the *Acharnians* just cited, there is no statement that this is the season when the demes were accustomed to hold their annual Bacchic celebrations. Rather, in his joy in his newly concluded peace, the hero declares that he will *now* hold this festival in honor of the god of the vine. No surprise is felt at this exceptional date, particularly as, by his statement below,⁶⁸ he has been prevented for six years from holding the festival at its proper season. This last passage, however, is the strongest authority for a change of place in the action. Certainly, if the reading is correct, in the light of all the remainder of the comedy we should naturally translate: "in the sixth year, having come into my deme, I salute you gladly." But we do no violence to the construction if we say that ἐλθὼν ἐς τὸν δῆμον means "going (*forth*) to my deme." Unquestionably up to the end of the first choral ode at v. 236, the action has gone on in Athens. But here, we are told, comes the change of place. In v. 202 Dicaeopolis has declared that he is "going in." What does he enter but his house in the city? At v. 236 the chorus also is in Athens. In v. 237, the voice of Dicaeopolis is heard from within—his *country* house, it is said; and in v. 238 the chorus is as suddenly before this same house! Such rapid changes might easily take place on a modern stage, but are of a character to excite remark in an ancient theatre. If there was a change here, the second scene must have represented Cholcoidae with the three houses of Dicaeopolis, Lamachus, and Euripides; and the three must be in the same deme; for the Bacchic procession of Dicaeopolis appears at v. 241, and is broken up by the chorus at v. 280. As soon as Dicaeopolis, by his by-play, has

⁶⁶ HAIGH, *Athic Theatre*, p. 47.

⁶⁷ OEHMICHEN, *Bühnenwesen*, s. 195.

⁶⁸ *Achar.*, 266 f.

obtained permission to plead his cause, he turns (v. 394) to the house of Euripides to borrow the wardrobe of one of the tragic heroes. Then, when his defense has divided the chorus, the first half call upon the gorgon-helmeted Lamachus (v. 566) to bear them aid, and that warrior appears from his house.

Now the common enemy has prevented the celebration of the Country Dionysia for six years. How is it possible, under such circumstances, to conceive of Euripides as composing tragedies in the country? How could the general Lamachus be living out of the city in such a time of danger? Certainly the play itself gives us authority that this scene also is in Athens. At v. 241 Dicaeopolis would go forth with his procession to hold the rural Dionysia in his deme. Prevented from doing so, he is from this on busy with the duties and pleasures of the Choes. His altercation with the chorus and with Lamachus ended, he (v. 623 f.) announces that he will open a market for all Bœotians, Megarians, and Peloponnesians. He sets up (v. 719) the bounds of his markets, and appoints three "himantes" as agoranomi. These officials are suggestive of those busy at the Anthesteria.⁶⁹ The first customer, from Megara comes in with: "Hail, agora in Athens" (v. 729), and brings for sale pigs suitable for sacrifice at the Mysteries (v. 747 and 764). The Lesser Mysteries came in Anthesterio first after the Anthesteria.

There is no change of place in the course of the action. The scene, the Pnyx with the houses of Dicaeopolis, Lamachus, and Euripides near by, remains the same. There is no indication of a jump in time from Posideo to Gamelio, and again from Gamelio to Anthesterio.

Amid all the preparations for the Anthesteria made in the play, two statements cannot fail to attract attention. In v. 504 f. the poet informs us that this is not the Greater Dionysia, when strangers, tribute-bearers, and allies were present. It is the contest at the Lenaeum. In v. 1150 f. the chorus frees its mind concerning the miserly fashion in which Antimachus treated them at a previous celebration of the Lenaea. Shall we say that the poet, in order to speak of things present before the eyes of the Athen-

⁶⁹ MOMMSEN, *Heortologie v. Anthesteria*.

ians, steps, in these two passages, entirely outside the action of the play? By no means. The poet is dealing with a vital issue. He is fighting against the ruinous war. The power of his genius is shown by the masterly manner in which he uses the moment which was present to his hearers. The victor at the Choes sat among the spectators; the very walls of the theatre had hardly ceased to resound with the din of the carousers. Here, or elsewhere, there is mention of but one ἐπὶ Ληναίῳ ἄγων, that is the Lenaea, or the dramatic contest at the Anthesteria.

In fixing the date of the "Dionysia at the Lenaeum," we have the authority of some interesting inscriptions which have been collected in Dittenberger S. I. G. II. 374. They are the record of moneys obtained from the sale of the hides of the victims sacrificed at various festivals of the Attic year. A portion of each of four separate lists has been preserved. In the first and fourth of these, as they stand in Dittenberger, three Dionysiac festivals are mentioned: that at Piræus, the Dionysia ἐν ἄστει, and the Dionysia ἐπὶ Ληναίῳ. The third list ends with the Dionysia in Piræus. The remaining inscription mentions two Dionysiac festivals, the one at the Lenaeum, and that ἐν ἄστει. The part of the record which should cover the Dionysia at Piræus is wanting. The calendar order of all the festivals mentioned is strictly followed.

Köhler in *C. I. A.*, led by the other inscriptions found with these four, says that the lists do not contain mention of all the festivals at which public sacrifices of cattle were made in that portion of the year covered by the inscriptions, but that these are to be considered only as records of the hide-money which was to be devoted to particular uses. As a matter of fact, however, nearly all the public festivals of importance, as well as some of less note, are included in these lists; and it would be difficult to demonstrate that they do not contain a complete record of the public hide-money for the portion of the year in which these festivals fall.

In these inscriptions the peculiarity with reference to the Dionysia is the same which we find in all other accounts which seem to give a complete record of these festivals. Only three are mentioned as held under public authority. Did the omission of

the Lenaea and Anthesteria occur only in this case, we might, following Köhler, admit that the hide-money from this particular festival was not devoted to this special purpose, and that for this reason the name did not appear in these records. But since in no case are there more than three mentioned; and since the third name is one which covers all celebrations in honor of Dionysus at the Lenaeum, this assumption cannot be granted. The important point, and one that cannot be too strongly emphasized, is that neither in these nor in any other inscription or official record is there any mention of the Lenaea or Anthesteria as such. The official language appears always to have been, as here: *Διονύσια ἐπὶ Ληναίῳ*, or: *ἡ ἐπὶ Ληναίῳ πομπή*, or, where the dramatic contest alone was intended: *ὁ ἐπὶ Ληναίῳ ἀγών*. Once only in the 5th century⁷⁰ do we find *Λήναια* used; and here it is synonymous with *ὁ ἐπὶ Ληναίῳ ἀγών*. Wilamowitz has well said that *Λήναια* as a name of a separate festival is an invention of the grammarians. Aristophanes, in the passage from the *Acharnians*, shows that this name may have been used commonly for the dramatic contest at the Lenaeum, and we know from Thucydides that Anthesteria was also used of the entire festival. It is impossible that in a record like the hide-money inscriptions, the official title *Διονύσια ἐπὶ Ληναίῳ* should be employed to cover two festivals separated by an interval of a month.

But was the Anthesteria a state festival, at which public sacrifices of cattle were made? The story of its institution by Pandion shows that it was public from the beginning. Aristophanes informs us⁷¹ that it maintained this character; for the Basileus awarded the prize at the Choes. The question of sacrifice requires fuller treatment.

Suidas⁷² and a scholiast⁷³ to Aristophanes quote from Theopompus the story of the establishment of the Chytri. On the very day on which they were saved, the survivors of the flood introduced the celebration of this day of the Anthesteria by cooking a potful of all sorts of vegetables, and sacrificing it to the

⁷⁰ *Acharnians*, 1155.

⁷¹ *Acharnians*, 1225.

⁷² SUIDAS, *χέτροι*.

⁷³ Schol. ARISTOPH., *Frogs*. 218.

Chthonian Hermes and those who had perished in the waters. The scholiast adds that sacrifice was offered to no one of the Olympian gods on this day.

In Suidas we find a hint of the other ceremonies on the Chytri. According to him, there were sacrifices to Dionysus as well as to Hermes. This suggests that the Chytri was but one day of the Anthesteria, and, though the worship of the departed may have been the older portion of the celebration, it was later overshadowed by the festivities in honor of the wine-god. As the text of his argument in his oration against Midias, Demosthenes cites four oracular utterances, two from Dodona, the others probably from Delphi. In the first the god calls upon the children of Erechtheus, as many as inhabit the city of Pandion, to be mindful of Bacchus, all together throughout the wide streets to return fit thanks to the Bromian, and crowned with wreaths, to cause the odor of sacrifice to rise from the altars. In this oracle, Athens is the city of Pandion, because it was reported that under his rule the worship of Dionysus was introduced into the city. This and the other commands from Dodona and Delphi concerning Dionysus refer to the introduction of the worship of the god; for in every one the statement is absolute; there is no reference to a previous worship and a backsliding on the part of the people. *κνισᾶν βομῳῖσι* of the first oracle can refer only to a sacrifice of animals. Stronger still is the statement in the fourth oracle (from Dodona) where the command is given to fulfil sacred rites (*ιερά τελεῖν*) to Dionysus, and to sacrifice to Apollo and to Zeus. (*Ἀπόλλωνι Ἀποτροπαίῳ βοῦν θύσαι . . . Διὶ Κτησίῳ βοῦν λευκόν.*) The command "to mix bowls of wine and to establish choral dances," in the second and fourth oracles, serves as an explanatory comment on "return fit thanks to the Bromian" in the first. "Let free men and slaves wear wreaths and enjoy leisure for one day," must refer to the Pithoigia. In this feast the slaves had a part, and enjoyed a holiday. Hence the saying⁷⁴ "Forth, slaves, it is no longer the Anthesteria." In obedience to the oracles then, public sacrifices could not have been lacking at the Anthesteria. Therefore, this festival must have been officially known as the Dionysia ἐπὶ Ληναίῳ.

⁷⁴ *θίραζε Κᾶρες οὐκέτ' Ἀνθεστήρια.*

The dramatic contests at the Lenaeum, like those at the Greater Dionysia, were undoubtedly preceded by sacrifices. The ἀγὼν ἐπὶ Ἀηναίῳ could hardly be separated from the Dionysia ἐπὶ Ἀηναίῳ. Therefore the hide-money inscriptions are also authority that Lenaea and Anthesteria are but two references to the same festival.

Thucydides, as we have seen,⁷⁵ knew of but two Dionysia in Athens itself; those ἐν ἄστει and the Anthesteria. Of these, using the comparative degree, he states that the latter were the ἀρχαιότερα. In his time the dramatic contests ἐν Ἀθήναις were in their glory, yet he mentions but one celebration in this locality. So here also we must conclude that Anthesteria was the name of the whole festival which Harpocration tells us was called *πιθολύγια*, *χοές* and *χύτροι*; that there was, in the flourishing period of the drama, no separate festival Lenaea, but that the ἀγὼν at the Chytroi came to be so called to distinguish it from that at the City Dionysia.

It is interesting in connection with Thucydides' statement that the Ionian Athenians in his day still held the Anthesteria, to examine the record of this festival in the Ionic cities of Asia Minor. To be sure we have very little information concerning the details of this celebration among them; but we do find two statements of importance. *C. I. G.* 3655 mentions certain honors proclaimed at the Anthesteria in the theatre in Cyzicus. Comparison with similar observances at Athens indicates that theatrical representations were to follow. *C. I. G.* 3044, *τῶν γῶνος Ἀνθεστηριοῖσιν*, refers to Teos. From the constant use of ἀγὼν referring to theatrical performances in connection with the festivals of Dionysus the word can hardly mean anything else here. So these two inscriptions, referring to two colonies, add their testimony that dramas were presented also at the Anthesteria in Athens.

Finally, Aristotle's *Politeia* falls into line with the hide-money records. In § 56, the statement is made that the Archon Eponymos had the Megala Dionysia in charge. In the following section, the Archon Basileus is said to have control, not of the Lenaea or of the Anthesteria—for neither is mentioned by name,—but of the Dionysia ἐπὶ Ἀηναίῳ. The Basileus and the Epimeletae together directed the procession; but the basileus alone controlled the

⁷⁵ II. 15.

[dramatic] contest. Here again, it is inconceivable that either Anthesteria or Lenaea should be omitted; so both must be included under Dionysia ἐπὶ Ἀγναίῳ.

We thus find our position supported by inscriptions of undoubted authority, and by a list of names ranging in time from before Aristophanes to the 9th century A. D., and in weight from Thucydides and Aristotle to the Scholiasts.

If the Limnae were not by the existing theatre of Dionysus, where were they? Not on the south side of the Acropolis, as a careful examination of the ground proves. In our study of the theatre-precinct, we found that the earth here in antiquity was at a much higher level than at present, while immediately outside the wall of this precinct to the south, the ground was considerably lower than it is now. The present height of the theatre-precinct is 91.4 m. above the sea level; of the Odeum, 97.7 metres; of the Olympieum, 80.8 m.; of the ground within the enclosure of the Military Hospital due south from the theatre, 75 m.; of Callirrhoe in the Ilissus opposite the Olympieum, 59 m.; of the Ilissus bed opposite the theatre, 50 m. From the present level of the theatre to the bed of the stream there is a fall of more than 41 m.; the fall is about equally rapid along the entire extent of the slope to the south of the Acropolis, while the soil is full of small stones. Surely, it would take more than the oft-cited handful of rushes to establish a swamp on such a hillside. We have, however, excellent geological authority that from the lay of the land and the nature of the soil, there never could have been a swamp there. The Neleum inscription⁷⁶ can be held to prove nothing further than that, as Mr. Wheeler suggests, the drain from the existing theatre ran through this precinct. We must therefore seek the Limnae elsewhere.

We know that from time immemorial the potters plied their trade in the Ceramicus, because here they found the clay suitable for their use. The so-called Theseum is 68.6 m. above the sea-level; the present level at the Piræus railroad station, 54.9 m.; at the Dipylum (and here we are on the ancient level), only 47.9 m. Out beyond the gate comes a long slope, extending till the Ce-

⁷⁶ *Am. Journal of Archaeology*, III. 38-48.

phissus is reached, at an elevation of 21 m. So the Dipylum is over 43 m. below the present level of the theatre-precinct; and it is the lowest portion of the ancient city. Here, therefore, in the northwest part of the city, is where we should expect from the lay of the land and the nature of the soil to find the marshes. Out in the open plain beyond this quarter of the city to-day, after every heavy rain, the water collects and renders the ground swampy. With the Dipylum as a starting-point, there is no difficulty in supposing that, in very ancient times, the Limnae extended to Colonus Agoraeus, to the east into the hollow which became a portion of the agora in the Ceramicus, and to the west into the depression between Colonus Agoraeus and the Hill of the Nymphs. The exact extent and character of the low ground in these two directions can only be determined by excavating the ancient level, which, as it appears to me, has not been reached by the deep new railroad cutting running across this section north of the so-called Theseum.

The excavations of Dr. Dörpfeld between Colonus Agoraeus and the Areopagus, have shown that the ruins and the ancient street at this point have been buried to a great depth by the débris washed down from the Pnyx. Unfortunately, these diggings have not been extensive enough to restore the topography of the west and southwest slopes of Colonus Agoraeus.

We have abundant notices, besides those already given, of a precinct or precincts of Dionysus in this section. Hesychius speaks⁷⁷ of a house in Melite where the tragic actors rehearsed. Photius repeats⁷⁸ the statement almost word for word. Philostratus mentions⁷⁹ a council-house of the artists near the gate of the Ceramicus. Pausanias (i. 2. 5), just after entering the city, sees within one of the stoas the house of Poulytion which was dedicated to Dionysus Melpomenus. He speaks next of a precinct with various *ἀγάλματα*, and among them the face of the demon of unmixed wine, Cratus. Beyond this precinct was a building with images of clay, representing, among other scenes, Pegasus, who brought the worship of Dionysus to Athens. This building

⁷⁷ HESYCH. *Μελιτέων οἶκος*.

⁷⁸ PHOTIUS, *Μελιτέων οἶκος*.

⁷⁹ PHILOSTR. *Vit. Soph.* p. 251.

also was plainly devoted to the cult of the wine-god. In fact, the most venerable traditions in Athens, with reference to Dionysus, centre here. All the various representations here are connected with the oldest legends. Pausanias (1. 3. 1.) says that the Ceramicus had its very name from Ceramus, a son of Dionysus and Ariadne.

We have already seen that an orchestra was first established in the agora. Timæus adds⁸⁰ that this was a conspicuous place where were the statues of Harmodius and Aristogiton, which we know to have stood in the agora.

The scholiast to the *De Corona* of Demosthenes⁸¹ says that the "hieron" of Calamites, an eponymous hero, was close to the Lenaeum. Hesychius words this statement differently, saying that [the statue of] the hero himself was near the Lenaeum. We know that the statues of eponymous heroes were set up in the agora. Here again the new Aristotle manuscript comes to our support, telling us (*Pol.* c. 3) that the nine archons did not occupy the same building, but that the Basileus had the Bucoleum, near the Prytaneum, and that the meeting and marriage of the Basileus' wife with Dionysus still took place there in his time. That the Bucoleum must be on the agora, and that the marriage took place in Limnaean-Lenaeon territory, have long been accepted. The location of the Limnae to the northwest at the Acropolis must thus be considered as settled.

Dr. Dörpfeld maintains that the ancient orchestra and the later Agrippæum theatre near by, mentioned by Philostratus,⁸² lay in the depression between the Pnyx and the Hill of the Nymphs, but considerably above the foot of the declivity.

From the passage of the *Neaera* quoted above we know that the old orchestra could not have been in the sacred precinct of Dionysus Limnaeus, for this was opened but once in every year, on the 12th of Anthesterio,⁸³ while the Chytri and therefore *ὁ ἐπὶ Ἀγναίῳ ἀγών* were held on the following day. This involves too that the Pithoigia as well as the "contests at the Lenaeum" could

⁸⁰ TIM. *Lex. Plat.*

⁸¹ DEMOS. *de Corona*, 129, scholium.

⁸² PHILOSTRATUS, *Vit. Soph.*, p. 247.

⁸³ See also THUCYDIDES above.

not have been celebrated in the sanctuary ἐν Λίμναις, though portions of each of these divisions of the Anthesteria were held in the Lenaeum, which contained the Limnaea hieron.

The Lenaeum must lie ἐν Λίμναις, and therefore on the low ground. A passage in Isæus (8. 35) is authority that the sanctuary of Dionysus ἐν Λίμναις was ἐν ἄστει; i. e., within the Themistoclean walls. So we have it located within narrow limits, somewhere in the space bounded on the east by the eastern limit of the agora in Ceramicus, south by the Areopagus, west by the Pnyx and the Hill of the Nymphs, and north by the Dipylum.

From the neighborhood of the Dionysiac foundations and allusions mentioned by Pausanias immediately upon entering the city, we may be justified in locating this ancient cult of Dionysus ἐν Λίμναις still more exactly, and placing it somewhere on or at the foot of the southwestern slope of Colonus Agoræus. More precise evidence of its site we may obtain from future excavation; though as this region lay outside the Byzantine city-walls, the ruins may have been more or less completely swept away.

In view of its position outside of the gate of the ancient Pelasgic city, by the wine-press, we understand why the contest in the Lenaeum was called a contest κατ' ἀγρούς. Because enclosed later within the walls of Themistocles, the Limnae were also referred to as ἐν ἄστει. Situated as they were in the territory of the agora, we see why, although the Archon Eponymus directed the City Dionysia, the Archon Basileus presided⁸⁴ over the Anthesteria, and therefore over "the contest at the Lenaeum"; and the agoranomi, the superintendents of the market-place, whose duties were confined to the agora, ἐπετέλεσαν τοὺς χύτρους.⁸⁵

In closing, it may not be without interest to review the picture presented of the most ancient Athens. Behind the nine-gated Pelasgic fortifications lay the city, with its temples, its palace, "the goodly house of Erechtheus," and its dwellings for the people, remains of which can even now be seen within the Pelasgicum. Immediately without the gate stood the Pythium, the Olympieum, the temple of Ge Kourotrophos, and other foundations. Directly

⁸⁴ POLLUX VIII. 89, 90. (ARISTOT. 'Αθην. Πολιτεία.)

⁸⁵ MOMMSEN, *Heortologie*, p. 352 note.

before the entrance, some two hundred paces from the city-walls, was the spring Enneacrounus, whose water was most esteemed by the citizens. Not far from this was the wine-press. Here the people built the first altar, the first temple, the first orchestra, and instituted the first festival in honor of the wine-god, long before the new Dionysian cult was brought in from Eleutherae; and here for centuries were raised every year about the orchestra tiers of wooden seats in preparation for the annual dramatic contests.

JOHN PICKARD,
American School of Classical Studies,
Athens, 1891.

CORRESPONDENCE.

HUNTING DELLA ROBBIA MONUMENTS IN ITALY.

To the Managing Editor of the American Journal of Archaeology :

Dear Sir: Having made a special study of the altarpiece by Andrea Della Robbia in the Metropolitan Museum, New York, my desire was aroused to examine all the glazed terracotta sculptures of the Della Robbia school, which form such an important part of Italian Renaissance sculpture. So I sailed for Italy on the 6th of last May, taking with me a good camera and a sufficient number of celluloid films, knowing beforehand that there were many of these monuments which had never been photographed and were consequently imperfectly known. An investigation of this character, which takes one over the mountains and into the valleys, from one end of Italy to the other, may well be described as a hunting expedition; and, though requiring severe labor and constant sacrifices, has in it a considerable element of sport. Although Dr. Bode, of Berlin in various writings has shown a more discriminating knowledge of this subject than other writers, nevertheless the work of Cavallucci and Molinier, *Les Della Robbia*, was more useful to me as a guide and starter. They had catalogued as many as 350 of these monuments in Italy, and briefly described them. But their attributions were uncertain. Prof. Cavallucci told me in Florence that unless he had a document in hand indicating the authorship of a monument he felt great hesitation in making attributions. And I could see, the more I studied his work, that he considered it more important to discover documents than to observe monuments. Here then was a great opportunity to see a large series of monuments, to compare them and allow them to tell their own story in regard to their origin. Having with the aid of geographical dictionaries and government maps located these 350 monuments, I made up my mind to see as many of them as possible. This was no easy task, as they were widely distributed and, as I progressed, the number of uncatalogued monuments constantly increased. I can give here but a bare outline of my trip. Starting at Genoa, I went to Massa and Pisa and Lucca; from Lucca following the valley of the Serchio as far north as Castelnuovo. Here

I found a fine series of unphotographed monuments, and began to learn that works of the same author and period are very likely to be found in neighboring towns, especially when lying along a valley. Similarly, starting from Pracchia above Pistoia I studied another series of unphotographed monuments at Gavinana, Lizano and Cutigliano. These monuments may prove to be of importance in solving the problem of the authorship of the celebrated Pistoian frieze.

At Prato the monuments of this class have been photographed, and are well known. Florence and its immediate surroundings contain the most important works of Luca and of Giovanni Della Robbia, but is very poor in examples of Andrea Della Robbia. Hence the Florentines have a very inadequate notion of Andrea's work, which must be studied at Arezzo, La Verna, Prato, Siena and Viterbo. At Florence I was fortunate enough to find an unpublished document ascribing one of the medallions at Or San Michele to Luca Della Robbia. Two of these medallions by the elder Luca had never been photographed before, but have now been taken by Alinari. So far as I know, the monuments at Impruneta, ten miles from Florence, are unknown to students of this subject. Three of them have been photographed by Brogi, who gives no attributions. They are not mentioned by Cavallucci nor by Dr. Bode; yet they are amongst the very finest works by Luca Della Robbia. In the private collection of the Marquis Frescobaldi I recognized a fine Luca Della Robbia, and in that of the Marquis Antinori an excellent example of Giovanni's work. Less important discoveries made in this region are too numerous to mention. At Empoli, not many miles from Florence, are several uncatalogued monuments and a fine example of a tile pavement, which I identified as Della Robbia work. I then visited Poggibonsi and Volterra and Siena, and satisfied myself that the beautiful coronation of the Virgin at the Osservanza outside Siena is a chef-d'oeuvre of Andrea Della Robbia. From Asciano I visited Monte San Savino, Lucignano and Foiano and took photographs of some fine, unrecognized works of Andrea Della Robbia. Another starting point was Montepulciano for a long drive to Radicofani, a weird Etruscan site, whose churches contained half a dozen unphotographed Della Robbias, then to S. Fiora, whose monuments have a greater reputation than they deserve, to S. Antimo, a fine Cistercian ruin, and Montalcino. At Perugia I photographed the monuments of Benedetto Buglione, thus laying the basis for a study of his works, a number of which may now be identified. In the case of his pupil, Santi Buglione, I was less successful, as the chapel at Croce dell'Alpe, which contained two authenticated altarpieces of his seems to have disappeared, not only

from sight, but from the memory of the inhabitants of the neighborhood. So the reconstruction of his style involves a wider stretch of the scientific imagination. At Acquapendente I found a unique glazed terra-cotta altar signed by Jacopo Benevento, at Bolsena took the first photograph of several monuments, and at Viterbo had photographs made of the important lunettes by Andrea Della Robbia. At Rome I penetrated the mysteries of the Vatican and discovered there a signed monument by Fra Lucas, son of Andrea Della Robbia, and found in the Industrial Museum several monuments, which I identified as by the same author. Hitherto Fra Lucas has been known only as the maker of tile pavements. At Montecassiano there is a large monument concerning which a document has been published in many Italian journals, ascribing the authorship to Fra Mattia Della Robbia. This has been published from a drawing, and my photograph is the first taken from the original monument. On the basis of a very imperfect acquaintance with his style, other monuments are being freely attributed to Fra Mattia. In the Marche there is a series of terracotta altar-pieces attributed to Pietro Paolo Agabiti, a local painter of the XVI century. These attributions are purely hypothetical, and the hypothesis that Fra Mattia might have been their author is now being tested by local archæologists. I travelled over a large portion of this province, seeing some important monuments, but without making discoveries of importance. Umbria in general proved even less fruitful, the terracotta monuments being of poor quality and showing little or no Della Robbia influence.

A very interesting region comprises Città di Castello, Borgo San Sepolero, Arezzo and the Casentino. Here Andrea Della Robbia left his impress strongly marked, especially in the very beautiful altar-pieces at La Verna. As we approach Florence we find more by Giovanni and his school, especially noteworthy being the monuments at Galatrona and San Giovanni.

When obliged to return home there remained very few known Della Robbia monuments in Italy which I had not visited; almost everywhere I found more than had been already catalogued, and my collection of photographs of these monuments is undoubtedly the most complete in existence. Already considerable knowledge has been gained of the differences of style, which characterized the various members of the school, as I hope to show in a series of articles for the *American Journal of Archæology*. In order to complete this work I shall still have to hunt further in the museums and private collections of Spain, Portugal, France, England, Germany and Austria. There are a few Della Robbia monuments in this country, of which one is in

Princeton, one in New York, one in Newport, R. I., and several in Boston.

Beside the direct pleasures of the chase and the bagging of game, there are many incidental pleasures in such a hunting expedition.

One learns of the whereabouts of other monuments, acquires a knowledge of the country, of the language, of the people and of all the local surroundings that help explain to us the significance of the past.

Yours sincerely,

ALLAN MARQUAND.

Guernsey Hall, Princeton, N. J., Dec. 27, 1892.

REVIEWS AND NOTICES OF BOOKS.

MAXIME COLLIGNON. *Histoire de la Sculpture Grecque*. Tome I. Firmin-Didot et Cie. Paris, 1892.

This is the first volume of what is likely to prove for some time to come the best general history of Greek sculpture. The personal inspection of monuments made during his connection with the French school at Athens, and his training as a lecturer at the Faculté des Lettres at Paris, have given M. Collignon an admirable training for the production of this book. We see in it also a hearty appreciation of more specialized work. This is essentially a history from the archaeological standpoint, the monuments of Greek sculpture, rather than written documents, being assumed as fundamental material. In this respect he represents a more advanced stage of archaeological science than Overbeck. Again we feel in reading the volume the constant assumption that the history of Greek sculpture is a continuous evolution. Even when the development is checked, as by the Dorian invasion, the element of continuity is emphasized. The Dorians construct new forms out of the elements which they find already established in Greece. Thus the connecting links evincing the continuous flow, are not lost sight of when he comes to treat of the different schools. This regard for the general conditions of development tempers his judgment and prevents him from formulating or approving of irrelevant and improbable hypotheses. This is an admirable temper for one who writes a general history. We do not find here remote analogies and startling theories. There is an even flow to the narrative which indicates to us that the knowledge of Greek sculpture is now more connected, and that many gaps have been filled in the list during a few years. Yet M. Collignon is not a literary trimmer, steering a middle course between opposing theories. He merely seeks for near and probable causes, and is not carried away by resemblances which have little historical value. His method is fundamentally the historical method, the four books which compose the first volume treating of the Primitive Periods, Early Archaic, and Advanced Archaic Periods, and The Great Masters of the v century. It is unnecessary to give here the general analysis of the book, as it does not differ essentially from other similar histories, but we may notice the

systematic method with which he treats his material. At the opening of each new period he briefly notes the general historical conditions, then having classed the monuments by schools he considers the characteristics of a few representative examples, and finally endeavors to summarize the style of the school or period. In doing this he is handling considerable new material which has not yet found its way into general histories. Even to specialists, this general treatment of a subject with which they may be familiar in detail, is valuable. The book is a summary and index to a large number of monographs scattered in French, German, Greek and English periodicals, and we find it much more convenient to have these references at the foot of each page rather than gathered together at the end of the volume as in Mrs. Mitchell's excellent history. Of course it is no easy matter to distinguish sharply the characteristics of different schools in a country as small as Greece, where there was so much interaction, and the formulas, which are laid down now, may require correction in a few years. Still the attempt is well made, and is helpful in consolidating our knowledge.

In a work of whose method we cordially approve, the defects, if there be any, are likely to be in the way of omission of material or under-valuation of that which is taken into consideration. In the direction of omission we find that practically no use whatever has been made of Cyprus as a school of archaic Greek art, yet there is considerable material for this in European museums as well as in the Metropolitan museum in New York. In unduly estimating the value of the material in hand, we find here and there more influence attributed to the Phœnicians, than we should be inclined to allow. For example (p. 43,) the ceiling at Orchomenos, is explained as Phœnician because of the rosettes, and the same design upon Egyptian ceilings at Thebes is explained as Phœnician also. Evidently M. Collignon has not yet learned the grammar of the Egyptian lotus. We commend him to Prof. Goodyear. He is also in error in ascribing the first use of the term "lax-archaic" to Brunn's article in the *Mith. Ath.* vii. p. 117, for it held an important place in Semper's classification of Doric monuments made three years earlier. But these are minor matters. The book is abundantly illustrated, having twelve excellent plates in lithograph and photogravure, and two hundred and seventy-eight in the tone process and photoengraving. We regret that the tone process had not been more extensively used, as the drawings do not and cannot give a sufficiently full impression of the objects. However, is it quite proper that the maker of a tone process plate should sign it as is done here *Petit sculpsit*? A. M.

HEINRICH-BRUNN. *Griechische Götterideale in ihren Formen erläutert.*
 8vo. pp. VIII, 110. München, Verlagsanstalt für Kunst und
 Wissenschaft. 1892.

This is not a systematic treatise, but a series of nine papers, all of which, except the last, have been already published. But we are grateful to Dr. Brunn and to his publishers for having collected these articles, which were scattered in various periodicals and written at wide intervals of time. In their present form they are instructive as revealing to us Dr. Brunn's general habits of mind in approaching his subject, as well as more useful and better adapted to a wide circle of readers. The first of these articles on the Farnese Hera appeared in the *Bullettino dell' Istituto*, in 1846, and is described as the "first attempt at the analytical consideration of the ideal of a Greek God," while the entire series may be taken as evidence that "the intellectual understanding of ideal artistic productions can be reached only on the basis of a thorough analysis of form." For his analysis of sculptural form, and his keen intuitions, Dr. Brunn has long been held in high esteem, and it is interesting to learn what we can of his methods. In considering the Hera head he first examined the original, afterwards a cast of it for many hours, then compared these impressions with observations made upon a human skull. In doing this he brings the work of art to nature, so as to substantiate or correct his impressions. We see him following the same method in the articles upon the Medusa and upon Asklepios. But this reference to nature is for the most part casual and incidental. It is not to nature but to literature that he resorts for help. He is not content to trust himself entirely to the method enunciated in the preface. He does not rest satisfied with the ideals as he reads them in the sculptured faces. He rather assumes that these ideals were fixed before they were expressed in marble. He looks at the heads of Hera and Zeus through "ox-eyed" and "dark-browed" glasses. He accepts the Divine ideal from the pages of Homer, rather than from the marble form, whenever it is possible. His mind is still imbued with doctrines concerning the "eternity of ideas" and "inward necessity," which he must have reached in some other way than by the analysis of external forms.

But while we may regard the method as not consistently applied, we have no fault to find with the method and no sentiment but that of admiration for the fine powers of observation displayed in these articles. There seems to be nothing in the form of the eye that escapes his attention. The slightest variations in the form of the lids, in the positions of the eyeball, he notices and assumes that they were

made the vehicles of expression. Similarly the forehead, the mouth, the chin, the hair are most attentively studied as vehicles of expression. Surely few, even trained archæologists, can read these pages without having their powers of observation quickened. By far the greater portion of workers in the field of Greek sculpture are concerned at the present time with the morphology of art for the sake of its history. The analysis of forms is utilized to ascertain an historical series, to discover schools, to establish dates. Here we find scarcely a mention of schools or artists, no reference to history and not a date. The analysis of form leads to the interpretation of monuments and the establishment of ideals. It is the physiology, not the history of art. The publishers, who are gaining a world-wide reputation for their photo process reproductions, have added to this book a series of fine phototype plates.

A. M.

ARCHÆOLOGICAL NEWS.

SUMMARY OF RECENT DISCOVERIES AND INVESTIGATIONS.

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AFRICA.

EGYPT.

TEXTS OF THE PYRAMIDS.—*Biblia* for November, 1892, contains an article by Dr. Brugsch on "The Texts of the Pyramids." It mentions the opening of one of the smaller pyramids of the Sakkarah group in 1880 by Mariette Pasha and the discovery of a number of hieroglyphic inscriptions beautifully chiseled into the walls of the inner aisles and chamber, which gave the name of the maker of the pyramid as Pepi, and fixed its date at the VI Dynasty or about 3,000 B. C. Prof. Brugsch then gives an account of his own work at the request of Mariette upon a second pyramid opened by Mariette's men at Sakkarah, where the walls of the chamber were covered with hieroglyphic inscriptions. A granite coffin, also, was found adorned with hieroglyphics repeating in different places the name of the King. The inscriptions on the walls had been destroyed in a number of places by treasure hunters.

Maspero, Mariette's successor, opened a number of pyramids of the same group and found a great quantity of inscriptions. As a result, new texts were discovered in a number of pyramids of which three belonged to the royal houses of the V and VI Dynasties. Maspero then published a copy of all these inscriptions together with their translation as far as this was possible.

These discoveries establish the important point in the study of the language, that its "iconographic phrase" dates from the most ancient times and goes back even to Menes the first king. The grammar, vocabulary and the construction of words and sentences betray the awkward stiffness of a language in its first literary beginnings, but it is shown in all its youthful strength and pregnancy.

A reciprocal comparison of all the texts found establishes the fact that they belong to a collection of texts known as "the Book." This "book" contained all the formulas and conjurations used after

death, is a guide for the deceased in the unknown future, and a book of charms, in which guise the Egyptian faith made its appearance in the most ancient period of culture, although containing nothing of the philosophy or history of the ancient Egyptians, it gives us much interesting information relating to mythology, geography, astronomy, botany and zoology.

For the ancient Egyptians believed that their earthly districts, cities and temples had heavenly counterparts of the same name; in fact, the whole geography of this world was duplicated in the world to come. The celestial inhabitants consist of the immortal company of the "shining" with the solar god at their head. Each constellation is designated as the abode of the soul of one god beneficent or maleficent. In his wanderings the soul of man came in contact with these abodes of the evil gods and the book which covered the walls of his mortuary chamber provided charms which made him proof against harm.

The texts of the pyramids promise to the departed the enjoyment of a new life which he continues to live in the earth, in the body, in heaven, in the spirit. The soul had power to reunite itself to the body at will. We find in the texts mention of Egyptian political institutions at the remotest period, the existence of a high type of civilization. Agriculture was highly developed. All the domestic animals, with the exception of the horse and camel, are introduced, the arts of cooking, of dressing and of personal adornment, all find mention.

The texts of the pyramids then, though they fail to give us any information with regard to the life or history of the kings whose chambers they adorned have still much significance for the universal history of civilization.

THE MARRIAGE OF AMENOPHIS IV.—The Amarna tablets show that Amenophis married other Babylonian princesses besides Thi his first wife who bore the title of "Royal mother, Royal wife, and Queen of Egypt." A large tablet on exhibition at the British Museum with two others in the museum at Berlin and one at Gizeh gives a very entertaining correspondence between Amenophis and Kallima-Sin, king of Chaldea and brother of one of Amenophis' wives and father of two others. The tablet in the British Museum is relative to the alliance with Lukhaite the youngest daughter of the Chaldean king.

Kallima-Sin is reluctant to give his daughter to the Pharaoh and advances various reasons for his indisposition while Amenophis smoothly explains away the various impediments.

Matters take a new turn in the Berlin letter where we find the Babylonian requesting a wife of the Egyptian monarch, the request is curtly refused, whereupon Kallima-Sin replies, "Inasmuch as thou

hast not sent me a wife, I will do in like manner unto thee and hinder any lady from going from Babylon to Egypt." Another letter however shows that Kallima-Sin finally consented on condition of large emolument to send Lukhaite to Egypt, and this very mercenary and diplomatic alliance was finally made.—*Biblia*, v, pp. 108, 109.

THE DATE OF THE FOURTH EGYPTIAN DYNASTY.—Mr. Petrie's statement in *Medum* as to the passage-angle of Senefru's pyramid completes a chain of astronomical evidence proving the commencement of the IV Dynasty to have been very approximately 3700 B. c.

The entrance passage of the Medum pyramid has a polar distance (allowing for the azimuth error of the passage) of about 45, and, if intended for observation of a circumpolar star, fixes the date of the structure within not very wide limits. Between 4900 and 2900 B. c. no naked eye star was within this distance of the pole, except the sixth magnitude star 126 Piazzi (XIII) which was so situate about 3820 to 3620 B. c., its minimum distance being about 36'. Allowing an uncertainty of a few minutes of arc, a date fifty years on either side of these extremes would satisfy the requirements of the case.

The passage-angle of the Great Pyramid is $3^{\circ} 30'$ below the pole ($3^{\circ} 34'$ in the built portion, the latest). The Second Pyramid passage has also an angle of about $3^{\circ} 31'$ polar distance (Smyth's measures—Perring and Vyse, whose angle measures are not accurate, give $4^{\circ} 5'$). Finally the northern "trial-passage" east of the Great Pyramid has the polar distance $3^{\circ} 22' +$ or $-8'$. Now at the date 3650 B. c. the star 217 Piazzi (somewhat brighter than that last named) was at a distance of $3^{\circ} 29'$ from the pole, increasing to $3^{\circ} 34'$ by 3630 B. c.

East of the Great Pyramid there are certain straight trenches (one at the N. E. corner) running respectively $13^{\circ} 6'$, $24^{\circ} 22'$, and $75^{\circ} 58'$ east of North and west of South. At about the date named these trenches pointed very nearly to Canopus at setting and to Arcturus and Altair at rising, the average error of azimuth being less than a degree.

But even these differences of half a degree or so are accounted for. Refraction at the horizon amounts to about $35'$ of arc; if we assume that the Egyptian (?) astronomers took it roundly at $30'$, and that they intended to observe the stars on the true and not the apparent horizon, we find the azimuths would have been (3645 B. c.):—

Canopus $13^{\circ} 3'$ (W. of S.), Trench $13^{\circ} 6'$

Arcturus $24^{\circ} 23'$ (E. of N.), " $24^{\circ} 22'$

Altair $76^{\circ} 0'$ ("), " $75^{\circ} 58'$

These figures speak for themselves. The dates 3645 B. c. for the trenches and external works, and 3630 B. c. for the completion of the

entrance passage, with an interval of fifteen years, accord with the probabilities of the case. It should be remembered that they are deduced quite independently.

The net result is that the three reigns of Senefru, Khuffu, and Kaffra may be definitely assigned to the century 3700-3600 B. C.—G. F. HARDY, in *Academy*, Oct. 29.

THE PETRIE PAPYRI.—A paper was read by Prof. Mahaffy at the Oriental Congress upon "The Gain to Egyptology from the Petrie Papyri."—The first part of the papyri placed in his hands by Mr. Flinders Petrie consisted of classical documents which had already been printed by the Royal Irish Academy in the Cunningham Memoirs. Of these a large volume had appeared, which was exciting vehement controversy in Germany. But in addition to these there was a great mass of private papers which had not yet been printed, but which had been deciphered partly by Prof. Sayce and partly by himself. These papers were in two languages—Greek and demotic, or the popular language of the Egyptians. These were in part hieroglyphs done into cursive. Of these demotic fragments a large quantity had been sent to the British Museum. The Greek papyri still remain in his own hands. Strange to say, only one of these texts is bilingual. These interesting documents might be divided into—(1) legal agreements, of which some were contracts, others receipts, others again taxing agreements; (2) correspondence, partly of a public and partly of a private character. In the former were official reports, petitions, complaints. The private correspondence was especially interesting in showing the condition of society at that date. A large number of Macedonians and Greeks were settled in the Fayum under the second Ptolemy, about 270 B. C. In addition there was a large number of prisoners from Asia, who must have been brought into Egypt after the great campaign of the third Ptolemy, about 246 B. C. This mixed body were the recipients of large grants of land in the Fayum. It was interesting to find that many of these grants were as large as 100 acres, and the occupiers are thus called *ἐκατοντάρουροι*. The farms were divided into three classes of land. First, there was what was called the Royal land, probably fruitful land was meant; the second class was called *ἄβροχος*, or land still in need of irrigation; and the third *ἄφορος*, or land which would bear nothing. This latter was also called *ἀλμυρὲς*, or the salt marsh, which was still common in Egypt. These recipients or allottees of land were called by a name familiar to all readers of Greek history—*κληρουχοί*. Prof. Mahaffy had found no native landowner mentioned in the papyri. But in many cases the natives had an interest in the crops on something like a *metayer* system. Among the

crops grown were the vine, olives, wheat, barley, rye. There was evidence in the legal papers that alienation of these farms was not allowed. Among the contracts are many between Greeks and natives. The principal officers of the Nome were the Strategos, the Oeconomos, and the ἐπιμελητής, or overseer. The commissioner of works had charge of drainage and irrigation works. It was amusing to find that two currencies were prevalent at that period, silver and copper. This discovery disposed of the current theory that the copper currency only came in under the late Ptolemies. The phrases for the rate of exchange had long been known—χαλκὸς οὐ ἀλλαγῇ, but he had now got hold of a later term, ἰσόνομος which might be translated 'at par.' These documents were also valuable, as being transcriptions from Egyptian into Greek, with respect to our knowledge of the Egyptian language. As the Egyptians did not write down their vowels, the vocalisation of the language was hardly yet known. But results of much importance were gained—first, of a palaeographical, and, secondly, of a linguistic character. We now know exactly how they wrote in the third century B. C., and we have also learnt what was the Greek used by the respectable classes of that epoch. The Greek was far purer and better than that of the Septuagint would lead us to expect. There was still a large number of papers to be deciphered, and a large addition to our knowledge might be expected.—*Academy*, Sept. 24.

A GREEK PAPYRUS OF THE OLD TESTAMENT.—At the Orientalist Congress in London a most interesting document was submitted by the Rev. Professor Hechler. It is a papyrus manuscript discovered a few months ago in Egypt, and is supposed by some authorities to be the oldest copy extant of portions of the Old Testament books of Zachariah and Malachi. These pages of papyrus when intact were about ten inches high and seven inches wide, each containing 28 lines of writing, both sides of the sheet being used. The complete line contains from fourteen to seventeen letters. The sheets are bound together in the form of a book in a primitive though careful manner with a cord and strips of old parchment. The Greek is written without intervals between the words. The papyrus is in fair preservation, and is believed to date from the third or fourth century. It thus ranks in age with the oldest Greek manuscripts of the Septuagint version of the Old Testament in London, Rome and St. Petersburg. The differences in this papyrus tend to the conclusion that it was copied from some excellent original of the Septuagint, which was first translated about the year 280 B. C. The first summary examination has shown that it has several new readings which surpass some of the other Septuagint texts in clearness of expression and simplicity

of grammar. It would also appear that it was copied from another Septuagint Bible and was not written, as was frequently the case, from dictation. A second scribe has occasionally corrected some mistakes of orthography made by the original copyist. These are still to be distinguished by the different color of the ink.

Professor Hechler said it was sincerely to be hoped that this papyrus of the Bible, probably the oldest now known to exist, would soon be published in fac-simile.

THE DATE OF THE AEGEAN POTTERY.—Quite a discussion has been carried on between Mr. Flinders Petrie and Mr. Cecil Torr on the subject of the period of the Aegean pottery in Egypt which Mr. Torr regards as having been assigned to too early a date by Mr. Petrie. The recent discovery of such fragments in the ruins of the palace of Khuenaten at Tel-el-Amarna, which existed for little over half a century in the XIV century B. C., would appear to prove beyond doubt the correctness of Mr. Petrie's position.—See *Classical Review* for March; *Academy*, May 14 and 21, etc.

A PROFESSORSHIP OF EGYPTOLOGY.—Miss A. B. Edwards has left almost the whole of her property to found a professorship of Egyptology, under certain conditions, at University College, London. The value of the chair will amount to about \$2,000 a year. Mr. W. M. Flinders Petrie has been appointed to this chair, and no better selection could have been made.

EXCAVATIONS BY DR. BRUGSCH, COUNT D'HULST AND M. NAVILLE.—Dr. H. Brugsch has been excavating during the past spring in the Fayoum. At Hawara he has discovered a considerable number of painted portraits. At Illahun he opened a tomb of the eleventh dynasty, which had not been entered since the mummy was originally deposited in it. Unfortunately the roof fell in before it could be properly cleared out. At Shenhour he came across the remains of a small temple. Since leaving the Fayoum he has been working on the site of Sais.

Count d'Hulst has been excavating at Behbet, near Mansourah, on behalf of the Egypt Exploration Fund. The ruined temple there is Ptolemaic, but the cartouche of Ramses II has been found in the course of the excavations.

Mr. Naville has returned to Europe. His excavations at Jmei el-Amdid, the supposed site of Mendes, have been unfruitful, and he has fared no better at Tel el-Baghliyah.—*Athenaeum* May 16.

EXCAVATIONS BY LIEUT. LYONS AT WADY HALFAH, ABUSIR, MATUGAH.
—Lieut. H. G. Lyons has been continuing exploration at *Wady Halfah*. He has cleared out the sand from one of the temples, and found there eleven slabs with figures of a king making offerings to the god Horus of Behen or Wady Halfah in a chamber in front of the Hall of Columns. The names in the cartouches have been erased, and it is, therefore, impossible to identify the king. A second temple, with sandstone pillars and mud brick walls, is inscribed in many places with the name of Thothmes IV. This building had been flooded and filled to a depth of 2 ft. with fine sand. The third temple of Wady Halfah was completely surrounded by a line of fortifications, the flanks of which rest on the river, but of these works only the foundation remains. The discovery of them is, however, decidedly important, for in them we must see beyond doubt the great frontier fortress which marked the limit of the rule of Egypt on the south.

About five miles beyond the rock of *Abusir*, Lieut. Lyons has excavated the large space, about two hundred yards square, which is mentioned in Burckhard's 'Travels in Nubia,' and upon which stand the ruined walls of what has been variously described as a Roman fort or a monastery. He has come to the conclusion that the building is undoubtedly Egyptian, and has traced the site of the ancient stone temple inside it.

He reports that he has discovered old Egyptian fortresses at Halfa and at Matuga, twelve miles south, the latter containing a cartouche of Userthesen III: and has opened three rocktombs at Halfa.—*Academy*, July 16 and Aug. 6.

NOTES BY PROF. SAYCE.—Besides Tel el-Amarna, I have visited El-Hibeh and the little temple of Shishak, which was uncovered there last year. It is, unfortunately, in a most ruinous condition. One of the natives took me to a recently-found necropolis at a place under the cliffs called Ed-Dibân, some two miles distant, which is plainly of the Roman age, and its occupants belonged to the poorer classes.

In the White Monastery near Sohâg, I found a stone with the cartouche of Darius, which had formed part of the ancient temple of Crocodilopolis.

I picked up some fine flint spear-heads near the line of Roman forts on the north side of the Gebel Sheikh Embârak, where I discovered an enormous manufactory of flint weapons and tools three years ago.

Lastly, I may add that at the back of the Monastery of Mari Girgis, about three miles south of Ekhnim, I found that another cemetery of the early Coptic period has been discovered, and that it is providing

the dealers with fresh supplies of ancient embroideries.—A. H. SAYCE, in *Academy*, Feb. 27.

PRESERVATION OF MOHAMMEDAN MONUMENTS.—The Soc. for the Protection of Ancient Buildings has protested, through Sir Evelyn Baring, against the so-called restoration of the mosque El-Mouyayyed and the mosque of Barkouk. It is proposed to rebuild the domed minaret of Barkouk's mosque and the suppressed bell-tower of the Sultan's mosque, which is to be replaced by a bulbous roof.—*Chron. des Arts*, 1892, No. 31.

ABU-SIMBEL.—The Council of Ministers has granted £1,000 for the preservation of Abu-Simbel, which is in danger of partial destruction. The rock above the four colossi on the façade, which is of sandstone with layers of clay, had become fissured, threatening an immediate fall. A party of sappers from the army of occupation have been sent to the temple, who, after binding with chains the falling rock, will break it up. Further examination will be made to ascertain whether additional work is required for the protection of this temple.—*Academy*, March 5.

ASSOUAN.—DAM.—A huge dam is to be thrown across the Nile at Assouan: its height will raise the water to the level of the floors of the ruins at Philae, enhancing rather than detracting from their picturesque grandeur. It is said that the structure of the dam will harmonize with the ancient architecture of Philae. The material already cut and lying in the quarries of Assouan will be almost sufficient to complete the dam.—*Biblia*, v. p. 109.

TOMBS.—Some new tombs have been opened, one by the Crown Princess of Sweden and Norway, the other by Mr. James. One of them belonged to the reign of Nofer-ka-Ra; and, in an inscription found in it, Prof. Schiaparelli has read the name of the land of Pun, which accordingly, was already known to the Egyptians in the age of the dynasty.—PROF. SAYCE in *Academy*.

CAIRO (NEAR). DESTRUCTION OF AN ANCIENT CHRISTIAN CHURCH.—Rev. Greville J. Chester writes (*Acad.* March 19). "Permit me to draw public attention to an almost incredible act of vandalism which was perpetrated during the last year in Egypt, close to the capital. The finest Roman ruin in Egypt was the fortress of Babylon, south of Cairo, known also as Mus'r el Atekeh and Dayr esh Shemma. One of the most interesting sights in that Dayr was the Jewish synagogue, anciently the Christian Church of St. Michael, but desecrated by being handed over in the middle ages by an Arab Sultan to the Jews, and thenceforward

to the present time used by them as a place of worship. The building was of much architectural interest. The old Christian nave and aisles were preserved intact; but the Jews had destroyed the apse which must have existed, and had replaced it by a square Eastern sanctuary, and over the niche, within which were preserved the Holy Books of the Law, had adorned the wall with numerous Hebrew texts executed in gesso, forming an interesting example of Jewish taste and work in the middle ages. Some of the ancient Christian screenwork of wood was preserved, but was turned upside down, probably because gazelles and other animals formed part of the design. Behind this building, in a sort of court, the very finest portion of the original wall of the Roman fortress was visible, and, what is more important, the inner and most perfect circuit of one of the Roman bastion-towers, which outside looked out on the desert.

All this is now a thing of the past. The Jews have razed the ancient church and synagogue to the ground, and in its place have erected a hideous square abomination, supported internally on iron pillars. Of the fine Roman wall which bounded the property, and with it the bastion-tower, with its courses of brick at regular intervals, and its deeply-splayed windows, not a vestige now remains."

CAIRO.—GIZEH MUSEUM.—M. de Morgan has been appointed director of the Museum in place of M. Grébaut. This will meet with general approval. He is young and energetic, and the work he has done in the Caucasus and in Persia has placed him in the front rank of archaeologists and explorers. Moreover, he is an engineer, and therefore possesses a practical knowledge which, in view of the conservation of the ancient monuments of Egypt, is a matter of prime importance. He has asked the Board of Public Works for £50,000 in order to secure the building against fire; it is built of very inflammable material. During the past summer the museum has been entirely rearranged by him. Of the rooms in the palace, only some thirty-eight contained antiquities last winter; now, however, about eighty-five are used as exhibition rooms, and, for the first time, it is possible to see of what the Egyptian collection really consists. On the ground floor the positions of several of the large monuments have been changed, and the chronological arrangement is better than it was before. In one large room are exhibited for the first time eleven fine *mastaba* stelæ of the Ancient Empire, (VI. Dyn.) which were brought from Sakkara during the past summer; they are remarkable for the brightness of the colours, the vigour of the figures, and the beauty of the hieroglyphics. On the same floor are two splendid colossal statues of the god Ptah which have been excavated at Memphis during last summer, and many other

large objects from the same site. In a series of rooms, approached from the room in which the Dér el-Bahari mummies are exhibited, are arranged the coffins and mummies of the priests of Amen which were brought down from Thebes two years ago. The coffins are of great interest, for they are ornamented with mythological scenes and figures of gods which seem to be peculiar to the period immediately following the rule of the priest-kings at Thebes, *i. e.*, from about B. C. 1000 to 800.

A new and important feature in the arrangement of the rooms on the upper floor is the section devoted to the exhibition of papyri. Here in flat glazed cases are shown at full length fine copies of the 'Book of the Dead,' hieratic papyri, including the unique copy of the 'Maxims of Ani,' and many other papyri which have been hitherto inaccessible to the ordinary visitor. To certain classes of objects, such as scarabs, blue glazed *faïence*, linen sheets, mummy bandages and garments, terra-cotta vases and vessels, alabaster jars, &c., special rooms are devoted. The antiquities which, although found in Egypt, are certainly not of Egyptian manufacture, *e. g.*, Greek and Phœnician glass, Greek statues, tablets inscribed in cuneiform from Tel el-Amarna, &c., are arranged in groups in rooms set apart for them; and the monuments of the Egyptian Christians or Copts are also classified and arranged in a separate room.—*Athenæum*, May 14 and Nov. 19.

THE FRENCH SCHOOL AT CAIRO.—M. Maspero analyzed before the *Acad. des Inscr.* (Oct. 28), the recent work and immediate prospects of the French School at Cairo. The *Memoirs* recently issued show the field that it covers at present. First comes a fascicule of Greek texts, the mathematical papyrus of Akmin, explained and commented by M. Baillet; a long fragment of the Greek text of the Book of Enoch, remains of the apocryphal Gospel and Apocalypse of St. Peter, reproduced by M. Bouriant. All these works are of extreme importance for primitive church history. Arab archæology is represented by memoirs of M. Casonova on an Arab globe, on sixteen Arab steles, and especially by M. Burgoin's great work on Arab art in Egypt. Father Scheil makes an incursion into Assyriology by his publication of some of the Tel el-Amarna tablets, and in this connection M. Maspero states that the intention of the school is to extend their researches to Syria and Mesopotamia and to include the entire East both ancient and modern. In the Egyptian domain, besides the Theban fragments of the Old Testament and the remains of the Acts of the Council of Ephesos, the notable event is the appearance of the first fasciculus of the work on *Edfu* by M. de Rochemonteix. In it a complete temple will be placed before students. The entire

Egyptian religion will be illustrated, in all its rituals,—ritual of foundation, of sacrifice, of the feast of Osiris. M. Benedite has commenced in the same way the publication of the Temples of Philæ.—*Revue Critique*, 1892, No. 45.

The investigations enumerated above are far from being all. They represent merely the official governmental side of the work. The learned societies have done a great deal; such as the *Ecole des lettres* of Algiers, the management of historical monuments (Tebessa), and the French School of Rome.

EL-KARGEH.—PLASTER BUSTS.—At a meeting of the *Académie des Inscriptions*, M. Héron de Villefosse exhibited four painted plaster busts from El-Kargeh, in the Great Oasis, which have recently been sent to the Louvre by M. Bouriant, director of the French School at Cairo. They have been taken from the lids of sarcophagi; but the peculiarity about them is that the heads were not in the same plane with the body, but as it were erect. The features have been modelled with extraordinary verisimilitude; the eyes are of some glassy material, in black and white; the hair was modelled independently, and afterwards fitted to the plaster head; the painting is in simple colours—various shades of red for the skin, and black or brown for the hair. M. Héron de Villefosse maintained that they were certainly portraits. The physiognomy of one is Jewish; another recalls a bronze head from Cyrene in the British Museum, which Fr. Lenormant considered to be of Berber type; the third might be Syrian, and the fourth Roman. The date is probably about the time of Septimius Severus. M. Maspero declared that he had never seen anything of the kind in any museum.—*Academy*, July 9.

These busts have been placed on exhibition at the Louvre, in the *Salle des fresques*.—*Chron. des Arts*, 1892, No. 28.

According to a writer in the *Temps*, two are Greeks, one Syrian and one a Jew. The Greeks are blond with straight hair; the others have dark brown curly hair. All are bearded. The drapery is white.—*Chron. des Arts*, 1892, No. 30.

The department of Greek and Roman antiquities at the Louvre has also received from M. Bouriant two funerary inscriptions found in the necropolis dating from the second century A. D. One is Latin, the other Greek.—*Chron. des Arts*, 1892, No. 32.

CHATBI (NEAR).—NECROPOLIS.—M. Botti has discovered between Chatbi and Ibrahimieh a Roman necropolis of the first or second century A. D. at a depth of fourteen metres. It is excavated in soft calcareous stone and its chambers and corridors are reached by a rock-cut staircase.

The bodies are both laid on the floor and placed in jars. They were intact.—*Chron. des Arts*, 1892, No. 30.

EL-QAB.—Mr. Taylor has been excavating here for the Egypt exploration fund, in continuation of the previous year's work. Prof. Sayce reports, after Mr. Taylor's departure (*Acad.*, March 12), that more of the foundations of the old temple which stood within the temple were then visible than the preceding year. The fragmentary remains show that among its builders were Usertesen (xii dyn.), Sebekhotep II (xiii dyn.), Amenophis I and Thothmes III (xviii dyn.) and Nektanebo I (xxx dyn.) In one of the tombs Nofer-Ka-Ra is alluded to as (apparently) the original founder of the sanctuary.

GEBELEN.—**TEMPLE OF HOR-M-HIB.**—Prof. Sayce writes. "On the voyage from Luxor to Assuan I stopped at Gebelên, and found that the Bedouin squatters there had unearthed some fragments of sculptured and inscribed stones on the summit of the fortress built by the priest-king Ra-men-kheper and queen Isis-m-kheb to defend this portion of the Nile. On examination they turned out to belong to a small temple which must once have stood on the spot. The original temple, I found, had been constructed of limestone by Hor-m-hib, the last king of the xviii dynasty, and brilliantly ornamented with sculpture and painting. Additions had been made to the temple, apparently by Seti I.; since besides the stones belonging to Hor-m-hib, there were other fragments of the same limestone as that of which the temple of Seti at Abydos is built, and covered with bas-reliefs and hieroglyphs in precisely the same delicate style of art. Eventually a building of sandstone had been added to the original temple on the west side by Ptolemy VII Philometor. It may be noted that Ra-men-kheper used bricks burnt in the kiln as well as sun-dried bricks in the construction of the fortress, as he also did in the construction of the fortress at El-Hibeh.—*Academy*, March 12.

HAT-NUB.—**THE EARLY QUARRY.**—This interesting quarry has been recently discovered by Mr. Griffith. Mr. Petrie writes: Allow me to note that in this quarry, described by Mr. Griffith (*Academy*, Jan. 23), and situated ten miles south-east of El Tell in this plain, the main quarry does not contain any name later than the vi Dynasty. The tablet in the thirtieth year being of Pepi II (Nefer-ka-ra), and mentioning the *sed* festival in that year, this might refer to the Sothiac festival of 120 years falling in that year, and so be important as a datum. There are seven painted inscriptions of Pepi II, containing about fifty lines in all. There are also a great number of incised graffiti.—*Academy*, Feb. 20.

HAWARA.—MUMMY PORTRAITS.—Among the most important discoveries of the year is that by Dr. Brugsch, of three mummy portraits in the desert of Hawara. These were found, uncoffined, and buried at a very slight depth below the surface.

The first is that of a woman: the portrait is brilliantly executed in tempera, on canvas, and is the most ancient of paintings on canvas known, for its date cannot be fixed later than the first century B. C.

The next portrait was on the mummy of a man but instead of a painting on canvas is a relief in stucco, gilded. The features are carefully reproduced, as are the beard and whiskers.

The third mummy was provided with a beautifully executed portrait on wood which is one of the best examples of ancient painting, though not so rare as the other, for ancient portraits painted on wood have long been known.—*Biblia*, v. p. 233.

HELIOPOLIS.—M. Philippe, the Cairo dealer in antiquities, is, with permission from the Gizeh Museum, carrying on excavations at Heliopolis, which have brought to light some tombs of the Saitic period.—*Academy*, Nov. 12.

KOM-EL-AHMAR.—"At Kom el-Ahmar, opposite El-Qab, I visited two recently-discovered tombs, which contain the cartouches of Pepi, and are in a fairly perfect condition. The walls are covered with delicate paintings in the style of those of Beni-Hassan, and explanatory inscriptions are attached to them. The early date of the paintings and inscriptions makes them particularly interesting. The tombs are still half buried in the sand, and only the upper part of the internal decoration is visible."—PROF. SAYCE, in *Academy*, April 2.

MEIR.—The authorities of the Gizeh Museum have, on the suggestion of Johnson Pasha, caused excavations to be made at Meir, near Deirut, in Upper Egypt, which have already resulted in the discovery of some tombs of the XI dynasty. It is intended to continue these excavations.—*Academy*, Nov. 12.

MEMPHIS.—DISCOVERIES BY M. DE MORGAN.—At a meeting of the *Acad. des Inscr.* Prof. Maspero communicated the result of the excavations on the site of Memphis by M. de Morgan. He has discovered among the ruins of the temple of Ptah a number of monuments of importance. First, a large boat of granite, similar to that in the museum at Turin, on which the figures are destroyed; next, several fragmentary colossi of Rameses II, and in particular two gigantic upright figures, dedicated by this king, of Ptah, the god of Memphis, enshrouded in mummy-wrappings and holding a sceptre in both hands; lastly, some isolated figures, arranged in a court or a chamber. The importance of this

discovery, said Prof. Maspero, will be realised when we bear in mind that we possess no divine image of large size, and that the very existence of statues of gods in Egyptian temples has sometimes been denied.—*Academy*, Sept. 17.

SEHEL.—THE TENTH DYNASTY.—Prof. Sayce reports that he has been finding evidences of the little-known x dynasty in the immediate neighborhood of the First Cataract. "Mr. Griffith and Prof. Maspero have shown that certain of the tombs at Siût belonged to the period when this dynasty ruled in Egypt. I have now discovered inscriptions which show that its rule was recognized on the frontiers of Nubia.

"An examination of the position occupied by the numerous inscriptions on the granite rocks of the island of Sehêl have made it clear to me that we must recognize two periods in the history of the sanctuary for which the island was famous. During the second period the temple stood on the eastern slope of an eminence where I found remains of it two years ago. As I also found fragments of it bearing the name of Thothmes III on the one hand, and of Ptolemy Philopator on the other, it must have existed from the age of the xviii dynasty down to Ptolemaic times. Throughout this period the inscriptions left by pious pilgrims to the shrine all face the site of the temple. So also do a certain number of inscriptions which belong to the age of the xii and xiii dynasties. But the majority of the inscriptions which belong to the latter age, like the inscriptions which are proved by the occurrence of the names of Antef and Mentu-hotep to be of the time of the xi dynasty, face a different way. They look southward.

"This winter I have come across a large number of inscriptions on the mainland side of the channel which look northward, that is, towards the island. A few of these inscriptions are of the time of the xii dynasty, but the greater number belong to the xi dynasty, and one is dated in the forty-first year of Ra-neb-kher. It would seem, therefore, that at the epoch when they were inscribed on the rocks the sanctuary of Sehêl stood either in the middle of the southern channel of the river or upon its edge.

"On the island side of the channel there are a good many inscriptions which are shown by the weathering of the hieroglyphs to be older than the age of the xi dynasty. Indeed, the inscription of an Antef is cut over one of them. They all present the same curious forms of hieroglyphic characters, and contain for the most part titles and formulæ not met with in the later texts. Moreover, they are not dedicated like the later texts to the divine trinity of the Cataract, Khnum, Anuke, and Sati, but to a deity whose name is expressed by

a character resembling an Akhem seated on a basket. Mr. Wilbour and I first noticed it last year.

"One of the early inscriptions contains a cartouche which reads Ra-nefer-hepu, the last element being represented by the picture of a rudder. Now Mr. Newberry and his companions at Beni-Hassan have discovered that one of the groups of tombs which exist there is of older date than the time of the XII dynasty. In this group of tombs occurs the name of a lady who was called Nefer-hepu. She must have been born in the reign of Ra-nefer-hepu, and will consequently belong, not to the age of the XI dynasty, but to that of one of the dynasties which preceded it.

"That this dynasty was the X is made pretty clear by the inscriptions on the mainland side of the channel I have described. Here I have found inscriptions of the early sort mingled with those of the XI dynasty in such a way as to show that they cannot have been widely separated in age. Moreover, in one of them, the name of Khati is associated with that of Ra-mer-ab; and Khati is not only a name which characterises the XI dynasty, but it was also the name of the owner of one of the tombs at Siût, which Mr. Griffiths has proved to belong to the time of the X dynasty. We were already acquainted with the name of Ra-mer-ab from a scarab; and two years ago Mr. Bouriant obtained a bronze vase which gave the double name of Ra-mer-ab Kherti. Kherti is a king of the X dynasty. By the side of the inscription which contains the name of Ra-mer-ab, I found others with the names of Ra-mer-ankh and Ameni. That Ameni was a king of the X dynasty has already been suspected.

"The inscriptions I have copied this winter, therefore, have not only given us the names of some kings of the X dynasty, one of them previously unknown; they have also shown that the power of the dynasty was acknowledged as far south as the Cataract. Moreover, they indicate that the government must have passed from the X to the XI dynasty in a peaceful and regular manner."

SHAT-ER-RIGALEH.—Prof. Sayce writes: "I have visited the famous "Shat er-Rigaleh," the valley a little north of Silsilis and the village of El-Hammâni, in which so many monuments of the XI dynasty have been discovered by Messrs. Harris, Eisenlohr, and Flinders Petrie. To these I have been able to add another cartouche, that of Ra-nofer-neb, a king who is supposed to belong to the XIV dynasty. His name and titles have been carved on the rock at the northern corner of the entrance into the valley by a certain Ama, a memorial of whom was found by Mr. Petrie in the Wadi itself (*A Season in Egypt*, pl. xv. No. 438). Mr. Spicer, whose dahabiyeh accompanied mine, photographed

the inscriptions in which Mentuhotep-Ra-neb-kher of the XI dynasty is mentioned, as well as the one which enumerates the names of three kings of the XVIII dynasty, Amenôphis I, Thothmes I, and Thothmes II. One of the inscriptions of Mentuhotep is dated in the thirty-ninth year of the king's reign. The epithet *mâ-kheru* "deceased" is attached only to the cartouche of Amenôphis I, not to those of the other two kings, proving that they reigned contemporaneously."—*Academy*, March 12.

TEL EL-AMARNA. — EXCAVATIONS BY MR. PETRIE. — Mr. Petrie communicates the following report to the *Academy*: "During the last four months I have been excavating at this place, the capital of Khuenaten. Past times have done their best to leave nothing for the present—not even a record. The Egyptians carried away the buildings in whole blocks down to the lowest foundations, completely smashed the sculptures, and left nothing in the houses; and the Museum authorities, and a notorious Arab dealer, have cleared away without any record what had escaped the other plunderers of this century. I have now endeavoured to recover what little remained of the art and history of this peculiar site, by careful searching in the town. From the tombs I am debarred, although the authorities are doing nothing whatever there themselves, and the tomb of Khuenaten remains uncleared, with pieces of the sarcophagus and vessels thrown indiscriminately in the rubbish outside.

The region of main interest is the palace; and the only way to recover the plan was by baring the ground, and tracing the bedding of the stones which are gone. For this I have cleared all the site of the buildings, and in course of the work several rooms with portions of painted fresco pavements have been found. One room which was nearly entire, about 51 by 16 feet, and two others more injured, have now been entirely exposed to view, and protected by a substantial house, well lighted, and accessible to visitors, erected by the Public Works Department. With the exception of a pavement reported to exist at Thebes, these are the only examples of a branch of art which must have been familiar in the palaces of Egypt. The subjects of these floors are tanks with fish, birds, and lotus; groups of calves, plants, birds, and insects; and a border of bouquets and dishes. But the main value of these lies in the new style of art displayed; the action of the animals, and the naturalistic grace of the plants, are unlike any other Egyptian work, and are unparalleled even in classical frescoes. Not until modern times can such studies from nature be found. Yet this was done by Egyptian artists; for where the lotus occurs, the old conventional grouping has constrained the design, and

the painter could not overstep his education, though handling all the other plants with perfect individuality. That Babylonian influence was not active, is seen by the utter absence of any geometrical ornament; neither rosettes or stars, frets or circles, nor any other such elements are seen, and perhaps no such large piece of work exists so clear of all but natural forms. Some small fragments of sculptured columns show that this flowing naturalism was as freely carried out in relief as in colour.

Of the architecture there remain only small pieces flaked off the columns. By comparing these the style can be entirely recovered; and we see that both the small columns in the palace, and those five feet thick in the river frontage, were in imitation of bundles of reeds, bound with inscribed bands, with leafage on base and on capital, and groups of ducks hung up around the neck. A roof over a well in the palace was supported by columns of a highly geometrical pattern, with spirals and chevrons. In the palace front were also severer columns inscribed with scenes, and with capitals imitating gigantic jewellery. The surface was encrusted with brilliant glazes, and the ridges of stone between the pieces were gilt, so that it resembled jewels set in gold. An easy imitation of this was by painting the hollows and ridges, and the crossing lines of the setting soon look like a net over the capital. We are at once reminded of the "net work" on the capitals of Solomon, and see in these columns their prototype.

This taste for inlaying was carried to great lengths on the flat walls. The patterns were incrustated with coloured glazes, and birds and fishes were painted on whole pieces and let into the blocks; hieroglyphs were elaborately carved in hard stones and fixed in the hollowed forms, black granite, obsidian, and quartzite in white limestone, and alabaster in red granite. The many fragments of steles which have come from here already, and which I have found, appear to show a custom of placing one stele—with the usual adoration of the sun by the king and queen—in each of the great halls of the palace and temple. These steles are in hard limestone, alabaster, red granite, and black granite. I have found more steles on the rocks on both sides of the Nile, and have seen in all eight on the eastern and three on the western cliffs.

The history of this site, and of the religious revolutions, is somewhat clearer than before. Khuenaten came to the throne as a minor; for in his sixth year he had only one child, and in his eighth year only two, as we learn from the steles, suggesting that he was not married till his fifth year apparently. On his marriage he changed his name from Amenhotep IV (which occurs on a papyrus from Gurob in his

fifth) to Khuenaten (which we find here in the sixth). A scarab which I got last year in Cairo shows Amenhotep (with Amen erased subsequently) adoring the cartouches of the Aten, settling his identity with Khuenaten. In a quarry here is the name of his mother, Queen Thii, without any king; so she was probably regent during his minority, and started this capital here herself.

The character of the man, and the real objects of his revolution in religion and art, are greatly cleared by our now being able to see him as in the flesh. By an inexplicable chance, there was lying on the ground, among some stones, a plaster cast taken from his face immediately after his death for the use of the sculptors of his funeral furniture; with it were the spoilt rough blocks of granite *ushabtis* for his tomb. The cast is in almost perfect condition, and we can now really study his face, which is full of character. There is no trace of passion in it, but a philosophical calm with great obstinacy and impracticability. He was no vigorous fanatic, but rather a high bred theorist and reformer: not a Cromwell but a Mill. An interesting historical study awaits us here from his physiognomy and his reforms. No such cast remains of any other personage in ancient history.

According to one view, he was followed successively by four kings, Ra saa ka khepru, Tut ankhamen, Ai, and Horemheb, in peaceable succession. But of late it has been thought that the last three were rival kings at Thebes; and that they upheld Amen in rivalry to Khuenaten and his successor, who were cut very short in their reigns. Nothing here supports the latter view. A great number of moulds for making pottery rings are found here in factories; and those of Tut ankhamen are as common and as varied as of Khuenaten, showing that he was an important ruler here for a considerable time. Of Ai rings are occasionally found here, as also of Horemheb, who has left a block of sculpture with his cartouche in the temple of Aten. So it is certain that he actually upheld the worship of Aten early in his reign, and added to the buildings here, far from being a destructive rival overthrowing this place from Thebes. Afterwards he re-established Amen (as I got a scarab of his in Cairo, "establishing the temple of Amen"), and he removed the blocks of stone wholesale from here to build with at Thebes. Later than Horemheb there is not a trace here; Seti and Ramessu are absolutely unknown in this site, showing that it was stripped of stone and deserted before the XIX dynasty. Hence, about two generations, from 1400 to 1340 B. C., are the extreme limits of date for everything found here. The masonry was re-used at Thebes, Memphis, and other places where the name of Khuenaten has been found.

The manufactures of this place were not extensive—glass and glazes were the main industries; and the objects so common at Gurob (metal tools, spindles, thread, weights, and marks on the pottery) are all rare here. The furnace and the details of making the coloured blue and green frits, have been found. Pottery moulds for making the pendants of fruits, leaves, animals, &c., are abundant in the factories; and a great variety of patterned "Phoenician" glass vases are found, but only in fragments.

The cuneiform tablets discovered here were all in store rooms outside the palace; they were placed by the house of the Babylonian scribe, which was localised by our finding the waste pieces of his spoilt tablets in rubbish holes. A large quantity of fragments are found of the Aegean pottery, like that of the early period at Mykenae and Ialysos. This is completely in accord with what I found at Gurob, but with more variety in form. The Phoenician pottery which I found at Lachish is also found here, so we now have a firm dating for all these styles. The connexion between the naturalistic work of these frescoes and the fresco of Tiryns and the gold cups of Vaphio is obvious; and it seems possible that Greece may have started Khuenaten in his new views of style, which he carried out so fully by his native artists. The similarity of the geometrical pattern columns to the sculptures of the Mykenae period is striking; hitherto such Egyptian decoration was only known in colour, and not in relief. We have yet a great deal to learn as to the influences between Greece and Egypt, but this place has helped to open our eyes."—W. M. FLINDERS PETRIE in *Academy*, April 9.

CUNEIFORM TABLETS.—Prof. Sayce while in Egypt spent several days at Tel el-Amarna with Mr. Petrie, and examined the fragments of cuneiform tablets which he has discovered there. Among them are portions of letters from the governors of Musikhuna, in Palestine, and Gebal, in Phœnicia. The most interesting were some lexical fragments. One or two of these formed part of a sort of comparative dictionary of three (or perhaps five) different languages, one of them of course being Babylonian, in which the words of the other languages are explained at length. The work seems to have been compiled by "order of the King of Egypt." Another work was a dictionary of Sumerian and Babylonian, in which the pronunciation of the Sumerian is given as well as their ideographic representation. Thus the Babylonian *risápu* and [*di*] *kate* are stated to be the equivalents not only of the ideographic *gaz-gaz*, but also of the phonetically written *ga-az-ga-az*. This confirms the views of Professors Sayce and Oppert, expressed long

ago, as to the comparatively late date at which Accado-Sumerian ceased to be a spoken language.—*Academy*, May 14.

TOMB OF KHUENATEN OR AMENOPHIS IV.—Prof. Sayce writes to the *Academy* of Feb. 27. I have been spending a few days at Tel el-Amarna. Mr. Flinders Petrie is excavating the ruins of the old city of Khuenaten, while M. Alexandre, on behalf of the Gizeh Museum, has spent the summer and autumn among the tombs of Tel el-Amarna, and his labours have been rewarded by some important discoveries. At the entrance to one of the tombs, for instance, he has found stelae of the usual tombstone shape let into the wall like the dedication tablets of Greek and Roman times. The removal of the sand from the foot of the great stela of Khuenaten, first discovered by Prisse d'Avennes, has brought to light a most interesting text. This describes the distance of the stelae erected by the Pharaoh one from the other, and thus defines the limits of the territory belonging to the city which he built.

But M. Alexandre's crowning discovery—a discovery which is one of the most important made in Egypt in recent years—did not take place until December 30. It was nothing less than the discovery of the tomb of Khuenaten himself. The tomb is well concealed, and is at a great distance from the river and the ruins of the old city. Midway between the northern and the southern tombs of Tel el-Amarna, in the amphitheatre of cliffs to the east of the ancient town, are two ravines, more than three miles from the mouth of one of them, towards the head of a small valley is the tomb. It resembles the famous "Tombs of the Kings" at Thebes, being in the form of a subterranean passage cut in the rock, and sloping downwards at an acute angle to a distance of more than 100 metres. In front of the entrance is a double flight to steps also cut out of the rock, with a slide for the mummy between them. After entering the passage of the tomb, which is broad and lofty, we pass on the right another long passage, probably intended for the queen, but never finished. Soon afterwards we come to a chamber, also on the right, which serves as an antechamber to another within. The walls of both chambers have been covered with stucco, and embellished with hieroglyphs and sculptures. Among the latter are figures of prisoners from Ethiopia and Syria, of the solar disk, and of female mourners who weep and throw dust on their heads. From the inscriptions we learn that the two chambers were the burial-place of Khuenaten's daughter Aten-mert, who must consequently have died before him. It further follows that Ra-si-aa-ka, Aten-mert's husband, who received the titles of royalty in consequence of his marriage, must have been coregent with Khuenaten.

Khuenaten himself was buried in a large square-columned hall at the extreme end of the tomb. Fragments of his granite sarcophagus have been found there by M. Alexandre, as well as pieces of the exquisitely fine mummy cloth in which his body was wrapped. At the entrance to the tomb M. Alexandre also picked up broken *ushebtis*, upon which the cartouches of Khuenaten are inscribed. Before the Pharaoh had been properly entombed it would seem that his enemies broke into his last resting-place, destroyed his sarcophagus, tore the wrappings of his mummy to shreds, and effaced the name and image of his god wherever it was engraved upon the wall. The only finished portions of the tomb are the chambers in which his daughter was buried. Elsewhere the tomb is in the same condition as the majority of the tombs of his adherents. The walls have never been covered with stucco, much less painted or sculptured, and even the columns of the magnificent hall in which his sarcophagus was placed remains rough-hewn. It is clear that the king died suddenly, and that he was buried in haste on the morning of a revolution. His followers may have made a stand against their enemies for a few months, but it is difficult to believe from the state in which the tomb has been found that they can have done so for a longer time. Very shortly after Khuen-Aten's death his city must have been destroyed, never to be inhabited again.

Mr. Petrie in a letter to the *Academy* says: "It has long been known that the Arabs had obtained access to the tomb of the remarkable founder of Tel el-Amarna; the heart scarab of Khuenaten was sold two or three years ago at Luxor, and the jewellery of Neferti-iti, his queen, a year or two before that."

The entrance is like that of the tomb of Seti I at Thebes; but the sloping passage is about half the length of that.—*Academy*, Feb. 6.

COLLECTION IN LONDON.—The collections of sculpture, painting, faience, &c., which Mr. Flinders Petrie brought back from his excavations last winter at Tel el-Amarna have been placed on view at 4 Oxford-mansion, Oxford-circus, W. Their special interest is that they reveal an hitherto unknown form of art, remarkable both for its originality and for its spirited rendering of natural objects. The resemblance to some of the finest objects of Mycenaean work is very striking. The exhibition remained open until October 15.—*Academy*, Sept. 24.

ETHIOPIA.

NORTHERN ETBAI.—EXPEDITION TO THE NORTHERN ETBAI.—A recent scientific expedition to northern Etbai or northern Aethiopia, by the order

of the Khedive, is the subject of a very interesting paper by Ernest A. Floyer, in the *Journal of the Royal Asiatic Society* for October.

The chief investigation of the expedition was devoted to the remains of certain large mining stations which proved to be doubly interesting, as giving evidence of two distinct periods of the mining industry.

Mines have been opened over almost the entire surface, and the remains of numerous towns mark the dwelling places of the miners.

Not only in the mines is found evidence of two methods, one very ancient and another less ancient; but in the settlements above were discovered remains of Ptolemaic construction, together with the stone huts of a race probably aboriginal, and preceding or contemporaneous with but not unknown to the ancient Egyptians.

The Ptolemaic miner seem to have employed the ancient methods to a great extent, so that it would seem that there could never have been any complete cessation of mining for a very long period.

The miners of Rameses' time, too, used methods of great antiquity. In the Wadi Abba stands a rock temple with hieroglyphic inscriptions stating that Sethos, father of Rameses the Great, had discovered gold mines in this region. Golenischeff believes this temple to have been erected by the Ptolemies. At the mines of Sighait is an hieroglyphic inscription recording the visit of a royal scribe and a mine inspector. This is faintly inscribed on the face of a steep rock. At the emerald mines of Sikait may be seen a number of Greek dedications over rock-cut temples. Near the Wadi Khashat, where topazes are found, there stands a square enclosure, the platform of a temple, and numerous ruined structures of apparent Greek origin. It would appear from these remains that the Ptolemies examined all of the ancient mines and reopened a certain number—here they erected their temples, houses and barracks for slaves, here they constructed high roads for their carts and oxen, with caravan service, and post houses built at intervals.

Beside these Ptolemaic ruins are found some traces of the prehistoric miners, and in a few cases as at the mines of the Um Roos these exist alone. The most important traces are the stone huts built of large stones in two lines, and of uniform irregularity. In connection with these huts there is not a single mark or inscription of any kind which might lead to a solution of the problem with regard to their origin.

Their implements, quantities of which are found at Um Roos were as crude as their abodes, in fact the use of some of them cannot be determined. The mines, though extensive, are little more than burrows, and in a few cases it is not known for what mineral they were

excavated. The writer, after dismissing the Æthiopians, the Kushites and the ancient Egyptians, as the probable pre-Ptolemaic miners, suggests that the Etbai was peopled by a negroid tribe of natural miners, the possible ancestors of the copper miners in the mountains north of Kordofan.

Near the Wadi Sikait, not far from the temples with Greek inscriptions already referred to, is a fine building of apparently later date, and supposed by the writer to have been a church from its construction, for the mines were worked steadily during the third and fourth centuries of the christian era. The structure has no roof over the main portion, but what was apparently an apse still retains its roof of long slabs of schist. The body is filled with fallen slabs. The walls show a side window and several niches, which features suggested a christian church.

ALGERIA AND TUNISIA.

M. René de la Blanchère in making, to the *Acad. des Inscriptions*, his report on the excavations and discoveries in Tunisia and Algeria during 1891, calls attention to the new organization of the archaeological administration of this region. Up to the present time Tunisia and Algeria had separate organizations, but the following arrangement has now gone into effect: M. de la Blanchère is delegate of Public Instruction and Fine Arts, in Algeria and Tunisia, and the mission under him is at present composed of M. M. Doublet, inspector of antiquities in the Regency; Pradère, conservator of the Museum of Bardo; Wood, attaché at the same museum; Gauckler, historical student, and Marye: it is quite distinct from the local administrations. Although it supplies the greater number of the agents of the Bey's service of antiquities, which it created, it has no connection with its administration any more than with that of similar organizations in Algeria, such as that of historical monuments. Its object is: (1) to keep the Committee of Historic works (of Algeria and Tunisia) informed of all that happens in Africa in the domain of archæology, to transmit to it any documents and to make researches regarding necessary work; (2) to carry on three important publications, two of which have already been partly published; the *Collections du Musée Alaoui*, the *Musées et collections archéologiques de l'Algérie*, and the *Catalogue général des musées de l'Afrique française*; (3) to hold itself at the disposal of the French ministry and the local authorities for any work deemed necessary, excavations, organization of museums, enterprises of learned societies, explorations, etc. The head of the mission, being a delegate of the ministry, has the right to oversee the Tunisian

service of antiquities, and has also for both Algeria and Tunisia the permanent inspection of libraries and museums.

By means of this central organization, all the desiderata for African archæology are obtained, and the best methods are put in practice for excavations, the organization of museums, and the publication of antiquities.

TUNISIA.

M. de la Blanchère reports that in 1891 the most urgent need in Tunisia was the classification of monuments that should be preserved. The operation is being carried on under the direction of M. Doublet; enquiry was opened in regard to about 150 monuments, nearly all of great importance, of which 27 are already classified. No excavations were undertaken by the service of antiquities, its funds being all employed on finishing the Bardo museum. It has, however, overseen or authorized the following enterprises, the most important of which will be found described in their alphabetical order: Sfaks; Sousse; Henchir Maatria; Dougga; Teboursouk; Henchir Tinah; Maktar.

CARTHAGE.—M. de Vogüé has communicated to the *Acad. des Ins.* (March 18) a report on the continuation of Father Delattre's excavations at Carthage, which go on giving interesting results which will be fully described in a publication by the explorer himself. At another point a funerary inscription was found of an iron caster. This is the first time the profession is mentioned in Carthaginian texts, which had hitherto mentioned only gold and bronze casters. Of course there was no casting of iron at that time, but only working of the metal.—*Revue arch.* 1892, II, p. 254.

TERRACOTTA MOULDS.—M. Héron de Villefosse communicated to the *Acad. des Inscr.* (Nov. 11,) the photographs of seventy-two moulds for intaglios, in terracotta, selected from a collection of over three hundred which were found in the lower part of Carthage, between the hill of St. Louis and the sea. They were all executed in antiquity. There are coin types, a head of Herakles, similar to that of some silver coins attributed to Jugurtha, the fronting head of Silenus of the coins of Kyzikos, the galley of the coins of Sidon, etc., all of the purest Greek style. There are also some female heads, recalling Greek Sicilian coins; standing figures; an Athena, a Pan, a Hermes fastening his heel-pieces, a Marsyas, an amazon, a nude woman fastening her sandal, recalling coins of Larissa in Thessaly; some of groups, a man overthrown by a lion, a lion devouring a horse, a man standing and killing a kneeling woman, an episode of the contest of Achilles and Penthesilea; finally some purely Egyptian types, such as scarabs

with royal cartouches. This collection of moulds was probably made by a manufacturer with the purpose of reproducing them.—*Rev. Critique*, 1892, No. 47.

CHEMTOU-SIMITHU.—Excavations have been carried on at this site by M. Toutain: they were continued, thanks to a subvention from the *Acad. des Inscriptions*. In a letter to the Academy dated June 16, M. Geffroy gives an account of what had been discovered up to date. Nearly the whole of the ancient theatre was discovered in a few weeks. In the space occupied by the orchestra was a mosaic, with all the shades of Numidian marble, nine metres in diameter. These are interesting peculiarities in the construction and arrangement of the theatre. It is neither adossed to a hill nor completely isolated: the lower part of the hemicycle of steps which was completely buried, is well preserved. M. Toutain had commenced researches in two necropoli of the city hoping to find tombs and epitaphs of the freedmen and slaves employed in the neighbouring quarries. He had begun the excavation of a large building, perhaps a basilica or a curia, which appears to be about 40 metres long.

In a letter to the *Académie*, dated October 16, M. Toutain gives information of further discoveries, principally in the theatre and forum. A square was discovered 20 met. wide by 25 met. long, paved with large slabs of granite of greenish blue schist. It is situated in the midst of the ruins of several important monuments, notably a temple and a basilica, and is certainly the forum of Simithu. It is bounded on the south by a monumental exædra whose substructions of cut stone are still in place, and whose architectural decoration can be reconstructed by means of the bases, fragments, columns, capitals, and pieces of cornice which have come to light. Toward the north the forum is bounded by two structures separated by a narrow paved street.

A mile-stone found is important, as containing the name of Emperor Galerius, and dating from the short period when, after the abdication of Diocletian and Maximianus, Hercules, Constantius Chlorus, and Galerius were Augusti (May 1, 305, to July 25, 306). It has also a topographic interest as belonging to the cross-road from *Thuburbo majus* to Tunis or Carthage, passing by Onellana and Uthina. M. Toutain has traced a system of bars, basins and cisterns, to supply with rain water a small Roman city, whose ruins are now called Bab. Khaled. It would appear as if the public buildings of the city were inhabited and made over at the Byzantine period.—*Revue critique* 1892, No. 44; *Revue arch.*, 1892, II, pp. 260, 266-7; *Chron. des arts* 1892, No. 34.

CHERCHELL.—M. Victor Waille has communicated to the *Acad. des Ins.* the first results of excavations on the field of manœuvres at ChercHELL. Captain Hétet and lieutenant Perrin conducted them. Three mosaic pavements were copied: there was found a dedicatory inscription to the governor C. Octavius Pudens Cæsius Honoratus, and some bronzes, among which were the base of a candelabrum and the handle of a chiseled vase, decorated with a helmeted bust of Roma, of the Byzantine period. The excavations are especially fruitful in small objects, pottery, bronzes, coins, etc.—*Chron. des arts*, 1892, No. 31; *Ami des mon.* 1892, p. 250.

DOUGGA.—The excavations carried on by MM. Denis and Carton, resulted in the clearing of the temple of Saturn; the discovery of the dedicatory inscription showing it to have been erected for the safety of Septimius Severus and Clodius Albinus; the finding of a large number of native steles; and the clearing of the theatre.

HADRUMETUM.—A small lead tablet covered on both sides with inscriptions, has been found in the Roman necropolis. It is a *tabella devotionis*, to be compared with others found at Hadrumetum, at Carthage and in Gaul. On one side is a series of magic names, accompanied by the figure of a genius with a rooster's head, standing in a boat and holding a torch, on the other side is an adjuration addressed to a certain *deus pelagicus arrius*: infernal maledictions are called down on the horses and drivers of the green and white factions of the circus. There was a god or genius named Taraxippos, "the scarer of horses," as M. Heuzey remarks.—*Rev. arch.* 1892, II, p. 267.

MAKTAR.—M. Border exhumed from the mines of the basilica, next to the amphitheatre, four fragments of an imperial dedicatory inscription, and a most interesting altar bearing a dedication in eighteen lines on the occasion of the sacrifice of a bull and a ram for the safety of an Emperor, whose name is hammered out: M. Doublet conjectures him to have been Elagabalus.—*A. d. M.* 1892, p. 109.

SOUSSE.—In the neo-punic necropolis, on which the camp is situated, two entire vases and 28 fragments of vases were found, decorated with painted inscriptions. In the Roman necropolis, along the Kairwan road, several interesting discoveries were made, among them a hypogeum containing several frescoes in fair preservation, containing curious figures and inscriptions, and also some inscriptions on marble or stucco.—*A. d. M.* 1892, p. 109.

TEBOURSOUK.—MM. Denis and Carton have excavated the megalithic necropolis of Teboursouk, whose tombs are stone circles, with one or more small dolmens in the centre.—*A. d. M.* 1892, p. 109.

TUNIS.—Hans von Behrs has contributed to the *Vossische Zeitung* a report on the museum of the Bardo near Tunis. A summary of it is given in the *Berlin Philologische Wochenschrift*, November 19.

ALGERIA.

M. de la Blanchère reports that in Algeria M. Gauckler investigated in 1891 the provinces of Algiers and Constantine, and spent some time at Cherchell whose antiquities he studied and partly published alone or in collaboration with M. de Waille. He planned at the same time an excavation. M. Marye was charged with the plan for organizing, for the first time, a collection of mussulman art, of native industrial art, and of Turkish and Arabic monuments.

The work regarded as most pressing by M. de la Blanchère in 1891 was the publication of African museums. The first series of the *collections du musée Alaoui* was almost completed: the *musées d'Oran* and *de Constantine* were in the press, following the *musée d'Alger* published in the preceding year. The general catalogue will be drawn up as each establishment is definitively organized. The first place belongs to the Bardo museum whose catalogue had already been partly compiled by M. de la Blanchère. The museum of Oran, under its conservator, Demaght, has been finally organized, and occupies a fine building given by the city. It has been enriched by several additions, notably the famous inscription of king Masuna. The museum of Constantine has received among other things, the results of an interesting excavation made at Collo, especially some curious vases with female silhouettes. The museum of the Bardo can, however, never be rivalled by any of the museums of Algeria. The immense palace is already nearly full, although the museum in 1891 was but four years old. The large hall is full, with its nine large cases; there are about 500 square metres of mosaics, 50 statues of large fragments, about 1200 inscriptions, and a multitude of small objects.

TIPASA.—The local curate, M. l'Abbè Saint-Gérard, has made some important excavations in an early Christian church. He found that the altar was placed at the end opposite the apse on a kind of platform or *béma* attached to the wall. Several inscriptions were found set into the mosaic pavement. One is the epitaph of Alexander, a bishop of Tipasa, another the dedication of the construction by him. To this bishop is attributed the merit of grouping about the altar the tombs of certain "righteous ancients," *justi priores*, by whom are undoubtedly meant his predecessors in the Episcopacy.—*Chron. des arts*, 1892, No. 14.

Professor Gsell assisted in the excavations above described and aided further details in a communication to the *Académie des Inscriptions*. The building mentioned was a funerary chapel built to the east of Tipasa by Bishop Alexander to contain the tombs of his predecessors. Near by a Christian sarcophagus was found with reliefs of Christ giving the law, Moses striking the rock and other subjects.

In the same locality is the basilica of Saint Salsa erected over her tomb. Built in the fourth century, it was decorated in the middle of the fifth by Potentius, probably a bishop; and enlarged in the second half of the sixth. It was still an object of veneration in the seventh century.—*Chron. des arts*, 1892, No. 28.

ASIA.

HINDUSTAN.

MUHAMMADAN COINS.—Mr. S. Lane-Poole has completed his "Catalogue of the Coins of the Mogul Emperors of Hindustan in the British Museum," dating from 1525, the invasion of Buber, to the establishment of British currency in 1835.

It describes over 1400 coins, chiefly gold and silver, of this splendid coinage. "In his introduction Mr. Lane-Poole deals with various historical, geographical, and other problems suggested by the coinage, and with difficulties of classification presented by the early imitative issues of the East India company and the French *compagnie des Indes*." This volume, the fourteenth, completes the cataloguing of all the Muhammadan coins in the museum.—*Journal Royal Asiatic Society* 1892, p. 425.

INDIAN NUMISMATICS.—Mr. Rodgers, Honorary Numismatist to the government of India, has finished his "Catalogue of the Coins with Persian or Arabic inscriptions in the Lahore museum," and practically finished his "Catalogue of the Coins in the Calcutta museum." His own immense collection has now been purchased by the Punjab government, and he has nearly completed his catalogue of that.

These catalogues will be of very great importance alike for the numismatic and for the modern history of India.—*Journ. Royal Asiatic Society*, 1892, p. 425.

NEW VARIETY OF MAURYA INSCRIPTIONS.—Prof. Buhler has made a very careful study of impressions of nine votive inscriptions from the relic-caskets discovered by Mr. Rea in the ruined stupa of Bhattiprolu in the Kistna District (Madras). He has made out their contents, and has arrived at the conclusion that they are written in a new variety of the Southern Maurya or Lāt alphabet. Twenty-three letters of

these inscriptions agree exactly with those ordinarily used in the edicts of Asoka which have long been held to belong to the first attempts of the Hindus in the art of writing. Four letters are entirely unusual, while the lingual l is introduced, which does not occur in Asoka's inscriptions. Further peculiarities are presented in the notation of the medial and final vowels. The appearance of the letters would indicate that the Bhattiprolu inscriptions probably belong to a period only a few decades later than that of Asoka's edicts. By a comparison of these inscriptions with Asoka's edicts, and with the inscriptions of Nâuâgleât, Hathegumplia, Bharhut and Triana, it becomes evident that they hold an intermediate position between the two sets, but are much more nearly related to those of the third century B. C. than those of the second. If this be true, the date of the Bhattiprolu inscription cannot be placed later than 200 B. C., and the inscriptions themselves prove that several distinct varieties of the Southern Maurya alphabet existed during the third century, B. C.

This fact would remove one of the strongest arguments in favor of the theory that writing was introduced into India during the rule of the Maurya dynasty—i. e., the absence of local sorts of letters in which the edicts of Asoka were written in places widely separated, for this may be explained by a desire to imitate as closely as possible the character of the original edict.

If then the Bhattiprolu inscriptions show a system of characters radically different from those of Asoka's edicts and at the same time in all probability coeval with them a strong point is gained for the side of those who are of the opinion that the introduction of writing into India took place centuries before the accession of the Maurya Dynasty. It is a curious fact that of all the anomalous letters in the Bhattiprolu alphabet not one bears any trace to the later alphabets of India, all the characters of which are derived from those of Southern Maurya. The language of these inscriptions is a Prakrit dialect and is closely connected with the literary Pali.—*Journ. Royal Asiatic Society*, 1892, p. 602.

THE INDIAN HELL.—In a number of the *Journal Asiatique* (Sept., Oct., '92), M. Léon Feer publishes an article entitled "*L'Enfer Indien*," in which he confines himself to the Buddhist hells, leaving the Brahmanic hells for another study. He avails himself of all previously printed matter and adds new material. His object is to group together and classify all the ideas on infernal punishments, on the crimes for which they are inflicted and their duration. There are separate chapters on: (1) the name and number of hells; (2) the eight large

hot hells; (3) the attribution of the hells to distinct crimes; (4) the small hells. There are many questions in connection with them which he leaves unsolved. Then come the cold hells: (1) the Chinese hells; (2) Southern hells; (3) the number and names of the cold hells (of both north and south); (4) the duration of one's dwelling in the various hells; (5) on the non-existence of the cold hells; (6) on the period of time spent in all the hells, etc. The main conclusions are, that: All Buddhists recognize eight burning hells, with ascending intensity, surrounded by secondary hells of numbers varying from four to sixteen. Beside those there are eight cold hells, but only in the North, their names being considered in the South as expressing merely the different periods of sojourn in the eighth hell. The number of hells is at least 12, at most 32.

ARCHÆOLOGICAL SURVEY.—The second volume of the new series of the Archæological Survey of India is devoted to a catalogue of the antiquities and inscriptions in the North-Western Provinces and Oudh, compiled by Dr. A. Fuhrer. No part of India, not even the Panjab, is so crowded with historic spots, associated not only with the life and teaching of Buddha, and with the Hindu theogony, but also with the Muhammadan conquest. Most of the ground has already been worked over by Sir A. Cunningham and his assistants; but there are square miles of ruined mounds still almost untouched. We continually hear of finds of ancient coins made by peasants during the rainy season; but the author is careful to point out that what is now wanted is systematic exploration, like that of Mr. Petrie in Egypt. The present volume is based rather upon printed documents than upon original research, though it shows everywhere the traces of personal knowledge. Its object is to carry out the orders of the Government, by placing on record a catalogue of the existing monuments, classified according to their archæological importance, their state of repair, and their custody. It is arranged in the order of administrative divisions and districts; but copious indices enable the student to bring together any particular line of investigation.—*Academy*, September.

A HISTORICAL DOCUMENT.—Dr. M. Aurel Stein, principal of the Oriental College at Lahore, has now ready for publication the first volume of his critical edition of the *Rajatarangini*, or *Chronicles of the Kings of Kashmir*, upon which he has been engaged for some years. This work, which was written by the poet Kalhana in the middle of the twelfth century, is of special interest as being almost the sole example of historical literature in Sanskrit. Hitherto it has only been known

from editions based upon corrupt MSS. written in Davengari, all of which show that they were copied from a MS. written in Sarada, the characteristic script of Kashmir. Dr. Stein has been fortunate enough to discover the original archetype, written in the latter half of the seventeenth century by a learned Pandit, on whose death the codex was divided among his heirs; but the fragments have been collected and entrusted to Dr. Stein for the purpose of the present edition. In a second volume Dr. Stein hopes to give exegetical notes on the text, with a commentary on matters of historical and antiquarian interest, and also (if possible) a map showing the ancient topography of Kashmir.—*Academy*, September.

EPIGRAPHY.—In part ix of *Epigraphia Indica*—the organ for the publications of the inscriptions collected by the Archæological Survey of India—Dr. James Burgess, the general editor, points out the scope of the work, and acknowledges the services of his collaborators. Out of a total number of about fifty papers, no less than twenty-one have been contributed by Prof. Bühler, of Vienna, and nineteen by Prof. Kielhorn, of Göttingen, both of whom served their apprenticeship in Sanskrit studies at Bombay. We are glad to learn that:

“The Government of India has sanctioned the continuance of the work in a second volume, and much progress has already been made in preparing the materials for it. It will contain a revised edition, with facsimiles, of the great inscriptions of Asoka by Prof. Bühler, who will also supply other papers on Jaina inscriptions from Mathura, on the Sanchi inscriptions, &c. The Government has secured an impression of the Badal pillar inscription, and, through the favor of Col. S. S. Jacob, of Jaipur, rubbings of the Harsha inscription have been obtained, which, together with others, have been edited by Prof. Kielhorn. Muhammadan inscriptions have hitherto been overlooked, or but sparingly edited. It is intended to give them a place in the new volume, for which two series of considerable length [from Delhi and from Bengal] have already been prepared [by Dr. Paul Horn].”
—*Academy*, September.

THREE NEW INSCRIPTIONS OF ASOKA.—At a meeting of the *Acad. des Inscriptions* (May 6), M. Sénart called attention to the historic importance of three newly-discovered inscriptions of Asoka Piyadasi and the modifications which their discovery must make in generally received ideas. They prove the diffusion of Aryan civilization in the very centre of Southern Dekkan, at a far earlier date than could have been supposed. M. Sénart's paper has been published in the *Revue Archéologique* (May-June, 1891).

The inscriptions were discovered by Mr. Lewis Rice, Director of archæology in Mysore, in the course of a survey of the Chitaldrung district and published by him. They were inscribed on immense boulders, several miles apart on the bands of Chinna Hagari, not far from the city of Mysore, a little above Bellary. They take us, therefore, seven degrees further south than any of the hitherto known inscriptions of the famous Maurya ruler, none of which had been found south of Guzerat and Ganjam. They are in the same characters and the same Pali or Prakrit language. The texts are now entirely new. They are new versions of the edict of which three copies were found as early as 1877 at Sahasaram, Rupnath, and Bairath. Mr. Rice distinguishes his three inscriptions as those of Brahmagiri, Siddhapur and Jatinga Râmesvara: they present an identical text, that of Brahmagiri being the best preserved. They differ, however, notably in their text from the inscriptions of the Sahasaram-Rûpnâth group and shed much light upon them. Dialectically speaking they belong in general to the same series as those of Sahasaram-Rûpnâth with interesting differences.

This discovery is an epoch-making one in Indian archæology. Piyadasi speaks, it is true, in his edicts of his relations with the distant lands of Kerala and Pandya, and his propaganda went as far as Ceylon: but the present inscriptions were found at a distance of some 300 kilom. from the coast. It is true that here he does not speak in his own name, but in that of the local authorities, but his suzerainty is clearly expressed. They enable us to antedate by several centuries the diffusion in this region of the civilization and religion of the Hindu Aryans.

BUDDHIST STUPAS IN THE KISTNA DISTRICT (MADRAS).—Mr. Rea, Superintendent Archæological Survey, Madras, sends papers to the chief secretary to government, dated Bangalore, 10th May 1892.

He reports excavations carried out at four Buddhist stûpas in the Kistna district, the inspection of all catalogued mounds in the Repalle taluk and the discovery by some diggers, of a curiously carved monolithic pillar near the Siva temple at Bezvada.

1. GUDIVÂDA.—The first stûpa, that of Gudivâda, was found to be badly demolished, narrow trenches dug at different points revealed the rough faces of solid brick wall from 9 to 11 feet in height, with foundation 3 feet below the surrounding ground level.

The ground covered measures about 140 square feet, in the centre of the mound the remains of a dome constructed of solid brick work are found in fragments of courses of brick in circular rings. He refers to the finding of four relic caskets in this spot at the time of demolition.

Near the stûpa is the site of the ancient village and fort; long ridges of earth, in form of a square, mark the position of the walls; within these, various articles have been turned up, large bricks, broken sepulchral urns and grain jars, together with beads of various material and Buddhist lead coins, both round and square; they bear the lion and the dâgoba, emblems of the Andhra dynasty. The inscriptions of some are preserved.

II. GHANTASALA.—At Ghantasala is a mound 112 feet in diameter and 23 feet in height; the excavations here disclosed the remains of a stûpa from which the complete plan was determined. In the centre is a solid cube of brick work 10 feet square, enclosed in a chamber 19 feet square with walls over 3 feet in thickness; outside this is a circular wall 3 ft. 6 inches thick, 55 feet 10 inches in diameter, this is enclosed in another circular brick wall 18 feet 3 inches thick, with a diameter of 111 feet; this was the main outer wall of the structure, the exterior surface bore a *chunam* facing. About the base is a raised procession path 5 feet 7 in. broad, and 4 feet 6 in. high, a projection is found at each of the cardinal points. The inmost squares are connected by walls 2 feet 4 in. thick, running parallel to these sides from the centre and corners, the cells formed by the intersections of these walls are packed with mud.

The fact that the main walls, *i. e.*, those of the squares and circles, are thicker than the others may indicate that they were carried up to form stories, or they may have been simply to strengthen the dome, if the exterior wall was carried up in that form. Further excavations in the mound discovered a marble slab carved with the Supada, a piece of a carved top rail panel and a number of carved slabs.

When the brick work was excavated a well 6 inches square filled with earth was found under 3 feet of solid brick work. Among the debris, at the top, were found pieces of a broken *chatti*, and a number of small articles, beads and a coin, which it had probably contained. Just below these was a *chatti* of red earthenware, 4½ in. in diameter, with a semi-circular lid, filled with black earth. Within this was a glazed *chatti* 2½ in. in diameter, and 1½ in. in height. It contained numerous leads, bits of bone, small pearls, bits of gold leaf and small pieces of mineral.

A number of marble sculptures have been removed from the stûpa of Ghantasala, and are now in the village. Among them are several pieces carved with lotus flowers, and other ornaments and inscriptions, square and circular moulded vases, a circular base carved with horses, elephants and other animals, an umbrella, a panel with rail and figures, and two carved slabs. Other remains found in

and near Ghantasala are an "ancient brass *dipa*, with a Telugu inscription and a small brass image of Siva" now in the temple, a "small *chakra* and a *trisula*, each with pillar base." Brick walls and brick debris are found all about the neighborhood, but so demolished as to make it impossible to determine what the buildings were.

III. BHATTIPROLU.—On the report in the stûpa of Bhattiprolu, a former letter is referred to in which an account is given of certain inscribed caskets, and other relics found in the centre of the dome some time before. The reports continue with the account of further excavations by means of trenches. Those about the exterior discovered an unbroken procession path at the small east quadrant, the face of the dome too at this point is intact to a height of over 5 ft. In the trenches at the north side there was found "two pieces of a marble umbrella, having a curve of a radius of 1 foot 6 in., a small piece of a pilaster base from a slab, a pilaster capital with horses and riders, and the half of what had been a large slab" carved with the lower portion of a draped figure.

At some distance from the basement, or procession path, the remains of six marble bases of the rail were found standing in position—they are 1 ft. 11., by 12 in., by 1 ft. 10 in., in height, spaced by a distance of 1 ft. 7 in. in each, they are sunk 1 ft. 6 in. below the brick floor, and rest on a broad marble slab.

A large number of ancient sites and mounds were examined in the neighborhood of Repalle. At *Anantaiaurum*, *Buddhânî*, *Chandavôlu* and *Puapûâ*. Considerable surface has been excavated for various purposes; the earth, a kind of black mud, is found to be thickly mixed with broken pottery and bones of animals; occasionally a pillar or other building stone is turned up. At *Môrakûru*, copper, lead and rarely gold and silver coins are found mixed with the broken pottery.

At *Krudarnudi*, *Maudura*, *Mûlpârî* and *Periarli*, mounds were examined, the earth was found to consist of black mud mixed with pottery and ashes. The mounds differ only in extent, and portions of several have been removed.

BHATTIPROLU.—A BUDDHIST STUPA.—Mr. Rea during last season examined the remains of a stûpa at Bhattiprolu in the Kistna district, the marble casing of which had been used by the Canal engineers; and in it he has made discoveries of very considerable interest.

He found the stûpa had been a solid brick building 132 feet in diameter, surrounded by a procession path about eight feet wide. It must thus have been of very nearly the dimensions of the *Amarāvati* stûpa. Fragments or chips only of the outer casing of marble

were found in the area he excavated. When the dome and portions of the drum had been previously demolished for the materials, inside the dome there was found "a casket made of six small slabs of stone dove-tailed into one another, measuring about $2\frac{1}{2}$ feet by $1\frac{1}{2}$ by 1 foot; inside this was a clay *chatti* containing a neat soap-stone casket, which enclosed a crystal phial. In this latter was a pearl, a few little bits of gold leaf, and some ashes." Mr. Rea considered that there might still be another deposit of relics; and having discovered the centre of the original brickwork, he found there a shaft or well $9\frac{1}{2}$ inches in diameter filled with earth, which went down about 15 feet. Following this he found at one side near the bottom a stone box about 11 inches by 8 and 5 inches deep, with an inscription round the upper lip. Inside was a small globular blackstone relic casket, two small hemispherical metal cups a little over an inch in diameter, with a gold bead on the apex of one, and the bead (fallen out) of the other; another small bead, two double pearls, also four gold lotus flowers $1\frac{1}{2}$ inch in diameter, two *trisulas* in thin plates $1\frac{1}{2}$ by 1 inch, seven triangular bits of gold, a single and a double gold bead—the weight of these gold articles being about 148 grains. There was also a hexagonal crystal $2\frac{5}{8}$ inches long by $0\cdot88$ inch in diameter, pierced along the axis, and with an inscription lightly traced on the sides. The stone relic casket measures $4\frac{1}{2}$ inches each way, the lid fitting on with a groove, and it contained a cylindric crystal phial $2\frac{1}{2}$ inches in diameter and $1\frac{1}{4}$ inches high, moulded on the sides and flat on top and bottom; the lid fitted in the same way as that of the casket. Inside was a flattish piece of bone—possibly of the skull—and under the phial were nine small lotus flowers in gold leaf; six gold beads and eight small ones; four small lotus flowers of thin copper; nineteen small pierced pearls; one bluish crystal bead; and twenty-four small coins in a light coloured metal, possibly brass, smooth on one side and with lotus flowers, *trisulas*, feet, &c., on the obverse. These had been arranged on the bottom and attached in the form of a *svastika*.

Two and a half feet below this was a second deposit on the opposite or north side of the shaft. The central area of the cover, in this case, has an inscription in nineteen lines with two lines round it—the letters being filled in with white. In the lower stone was a receptacle $6\frac{1}{2}$ inches deep, by $7\frac{1}{2}$ in diameter, having a raised rim $1\frac{1}{2}$ inches broad, bearing another inscription of two lines on the upper surface—the letters also filled in with lime. The cavity was nearly filled with earth, and contained a phial $1\frac{1}{8}$ inches in diameter and $2\frac{1}{4}$ inches high, with a lid moulded like a *dagoba*. The phial and lid were lying separate, and

there was no sign of a relic. Mixed with the earth were 164 lotus leaves and buds, two circular flowers, a trisula and a three-armed figure like a *svastika*, all in gold leaf, two gold stems for lotus flowers, six gold beads, and a small gold ring—weighing, collectively, about 310 grains; also two pearls, a garnet, six coral beads, a bluish, flat, oval bead, a white crystal bead, two greenish, flat, six-sided crystal drops, a number of bits of corroded copper leaf in the shape of lotus flowers, a minute umbrella, and some folded pieces about 2 inches by 1½, showing traces of letters or symbols pricked upon them with a metal point, but too corroded to permit of unfolding or decipherment.

Next, at a slightly lower level on the east side of the shaft, he came upon a third black stone cover, with an inscription of eight lines cut on the under surface in a sunk, circular area in the centre. The lower stone again bears an inscription round the rim of the cavity in one line—the letters being whitened. The receptacle was 5½ inches deep, 7½ wide at the top, and 5 at the bottom. It was also nearly filled with earth, and contained a crystal phial similar to that in the second, the lid lying apart; but close to it was the relic casket, perhaps of chrysolite, less than half an inch each way by three-eighths, in which is drilled a circular hole 0.28 inch in diameter, closed by a small, white crystal stopper with hexagonal top. The neck is covered with gold leaf, and a sheet of the same was fixed outside to the bottom. This unique casket contains three small pieces of bone. With it were found a bluish bead ½ inch long, a smaller one, and one of yellow crystal, a small hexagonal crystal drop, slightly yellowish in colour, a flat one of white crystal, a bone bead, six pearls, thirty-two seed pearls—all pierced, thirty lotus flowers, a quatrefoil, and a small figure of gold leaf.

The alphabet of the inscriptions presents features of peculiar interest, which I leave to be discussed by Prof. Bühler.—Jas. Burgess in *Acad.* May 21.

N. B.—Further details are given under the headings "*New variety of Maurya inscriptions*," and also under "*Buddhist Stupas in the Kistna district*."

GAUHATI.—ASSAM.—Mr. Joseph Chunder Dutt has reprinted from the *Indian Nation* (Calcutta) an account of an archæological visit to Gauhati, the ancient capital of Assam. The temples, &c., he describes mostly date only from the eighteenth century, as is shown by the inscriptions which he is careful to quote. There are, however, many ruins of older buildings and fragments of sculpture, which would perhaps repay more detailed examination. The destruction of some of these is due to the misdirected activity of British engineers.—*Academy*, Feb. 6.

PANJAB.—REMAINS OF ANCIENT BUDDHIST TEMPLES.—The *Journal of the Royal Asiatic Society* for October, 1892, contains a note in "Ancient remains of Temples on the Bannu Frontier," an unfrequented part of the Panjab. The ruins of two temples stand on a hillock rising from the Indus. The tradition with regard to them is that the Pandwas retired here to spend twelve years of exile after being defeated by the Kerwá. A short distance from these ruins is the site of a third temple now completely demolished. This temple was completely demolished. This temple was built of bricks of light pressed (?) clay about 12x9x3 inches in size. On breaking some of the bricks they were found to bear distinctly the impression of tree leaves, and brought under the influence of a petrifying spring which exists not far from the spot.

The remains are undoubtedly of great antiquity, and appears to have been Buddhist temples of the tall, conical kind. Their Buddhistic origin is made certain by the eight-leafed lotus ornaments which characterize the carvings.

THIBET.

Mr. Rockhill, who made himself so well-known by his first expedition to Thibet, is at present engaged in a second journey, in the hope of this time reaching the capital Lhasa.

The Duke of Orleans and his companion have already published the results of their journey undertaken shortly after Mr. Rockhill's first.

CHINA.

THE GAME OF WEI-CHI.—At a meeting in Shanghai of the Chinese Branch of the Royal Asiatic Society, M. Volpicelli read a paper on "The Game of Wei-Chi," the greatest game of the Chinese, especially with the literary class and ranked by them superior to chess. Like chess, this game is of a general military and mathematical character, but is on a much more extensive scale, the board containing 361 places and employing nearly 200 men on a side. All of the men, however, have the same value and powers.

The object is to command as many places on the board as possible—this may be done by enclosing empty spaces or by surrounding the enemy's men. Very close calculation is always essential in order that a loss in one region may be met by gains in another, thus employing skillful strategy when the contestants are evenly matched. The game has come down from great antiquity, being first mentioned in Chinese writings about B. C. 625. It was in all probability intro-

duced by the Babylonian astronomers who were at that time the instructors of all the East.—*Journal of the Royal Asiatic Society*, 1892, p. 421.

CENTRAL ASIA.

EXPEDITION OF M. DUTREUIL DE RHINS.—The *Académie des Inscriptions* sent M. Dutreuil de Rhins some time since on an archæological expedition to Further Asia. Beside the income of the Gamier fund previously accorded to him for the purpose, it has accorded him a grant of 30,000 francs. The last news from him was a report.—*Chron. des Arts*, 1892, No. 22.

THE ORKHON INSCRIPTIONS.—We quote from the *Times* the following report of two papers read before the Oriental Congress, in the section of China and the Far East:

"A paper was contributed by Mr. E. Delmar Morgan on 'The Results of the Russian Archæological Researches in the Basin of the Orkhon in Mongolia.' Mr. Morgan drew attention to a splendid atlas of plates presented to the Congress by Dr. Radlof, of St. Petersburg, containing photographs and facsimiles of inscriptions copied by the members of the archæological expedition sent by the Imperial Academy of Sciences to investigate the ruins on the Orkhon. These ruins comprise (1) the remains of an ancient Uighur town west of the Orkhon, (2) the ruins of a Mongol palace to the east of that river, and a large granite monument shattered into pieces. Excavations were also made of the burial places of the Khans of the Tukiou or Turks inhabiting this part of Asia previously to the Uighurs, who drove them out. The earliest inscription dates from 732 A. D., and refers to a brother of the Khan of the Tukiou mentioned in Chinese history. Additional interest attaches to these inscriptions owing to the fact that some of the characters are identical with those discovered on the Yenissei. The expedition to which the paper referred visited the monastery of Erdenitsu, and found there a number of stones with inscriptions in Mongol, Tibetan, and Persian, brought from the ruins of a town not far off. These ruins have been identified with Karakoram, the capital city of the first Khans of the dynasty of Jenghiz Khan.

"Prof. Donner wished to present to the Congress a publication by the Société Finno-Ougrienne at Helsingfors, containing inscriptions from the valley of the Orkhon, brought home by the Finnish Expedition in 1890. There are three large monuments, the first erected 732 A. D., by the order of the Chinese Emperor in honour of Kiueh-Jeghin, younger brother of the Khan of the Tukiou (Turks). On the

west side it has an inscription in Chinese, speaking of the relations between the Tukiü and Chinese. The Tartar historian, Ye-lu-chi, of the thirteenth century, saw it and gave some phrases from the front of it. On all the other sides is a long inscription of 70 lines in runic characters, which cannot be a mere translation of the Chinese because it numbers about 1400 words, while the Chinese inscription contains only about 800. The other monument has also a Chinese inscription on one side, but greatly effaced. On the other sides are runic inscriptions in 77 lines at least. This monument was erected, by order of the Chinese Emperor, in honour of Mekilikn (Moguilen), Khan of the Tukiü, who died 733 A. D. About two-thirds of its runic inscription nearly line for line contains the same as the first monument, a circumstance of importance for the true reading of the text. The third monument, which has been the largest one, was destroyed by lightning and shattered into about fifty fragments. It is trilingual—viz., Chinese, Uighur, and runic or Yenissei characters. On comparing the texts they are found to contain many identical words and forms, proving that the languages were nearly identical. M. Devéria thinks that this is the memorial stone which the Uighur Khan, 784 A. D., placed at the gateway of his palace to record the benefits the Uighurs had done to the Chinese Empire. Concerning the characters of these inscriptions they show small modifications. The tomb inscriptions at Yenissei seem to be the more original; some characters have been altered in the Tukiü alphabet and also in the third monument, representing in that way the three several nations—the Tukiü, the Uighurs, who followed them, and the Hakas, or Khirgiz, at Yenissei. A comparison of the characters themselves with the alphabets in Asia Minor shows that about three-fourths of them are identical with the characters of the Ionian, Phrygian, and Syrian [?]. The other part has resemblances with the graphic systems of India and Central Asia. We can now expect that the deciphering of these interesting inscriptions will soon give us reliable specimens of the oldest Turk dialects.” —*Academy*, Sept. 17.

SIMFEROPOL.—At Simferopol Prof. Messelowski has made the most interesting discovery of a Scythian warrior's grave, dating probably from about the second or third century. The skeleton lay on its back facing the east, on the head was a cap with gold ornaments, and little gold plates were also fixed to portions of the dress. Near the head stood two amphoræ and a leathern quiver containing copper-headed arrows. At the feet were the bones of an ox, an iron knife, four amphoræ and some lances—these were in a very rusty condition. The quiver had a fine gold-chased ornament upon it representing a flying

eagle gripping in its talons a small animal. It is admirably worked. The skeleton itself fell to pieces immediately.—*Biblia*, Oct., 1892.

SEMITIC EPIGRAPHY AND ANTIQUITIES.—M. Clermont-Ganneau has published in the *Journal Asiatique* for 1892, No. 1, a series of the discoveries and investigations made in Semitic epigraphy and antiquities during the year 1891. It is the address by which he opened his course at the Collège de France. He commences with Phœnicia and notices besides such discoveries as are reported in the *Journal*, such books as Goblet d'Aviella's *La migration des symboles*, which is a comparative study of Oriental art symbols, and Ph. Berger's *Histoire de l'écriture dans l'antiquité*, which treats especially of the development of the Phœnician alphabet. As an original supplement he describes some antiquities recently sent to him, which had been found in the necropolis of Sidon, *e. g.*, a terracotta head of Egyptian style; a smaller head of Cypriote style; a statuette of Bes; two gold ear-rings; bottom of a Greek vase with a Phœnician inscription; piece of a diorite scarophagus cover of Egyptian origin, probably that of a king of Sidon. Another complete anthropoid sarcophagus from the same site at Sidon has been sent to Constantinople. Still another sarcophagus of this type has been found in Spain, at Cadiz, the ancient Gades. Its importance is incalculable, as it proves for the first time the passing of the Phœnicians to Spain. Mr. Clermont-Ganneau then takes up Aramean antiquities and inscriptions, especially those of Palmyra. Among them are a number secured by the writer himself; they are three fine monumental funerary inscriptions and six funerary busts of men and women, two of which are finely executed and remarkably well preserved; all are inscribed and several are dated. He notices the publication of the valuable *Journal d'un voyage en Arabie* (1883-1884) by Charles Huber, in which the five note-books of the traveller are reproduced. It will be remembered that he was treacherously murdered during his journey. Dr. Euting in his *Sinaitische Inschriften* publishes 67 inscriptions copied by him in the Sinaitic peninsula. His readings are very careful and accurate. Three of the texts are dated and are important in view of the controversy as to the age of all these inscriptions.

Palestine and Hebrew antiquities are very fully treated. M. Clement-Ganneau reads the famous Lachish inscription לִחְיֵי = *ad libandum*; he calls attention to hematite weight with an early inscription found at Sebaste; mentions the vandalism perpetrated in cutting away the famous Pool of Siloam inscription, *etc.* He notes the importance of the discovery by MM. Lees and Hanauer in the subterranean structures at Jerusalem called "Solomon's Stables," of the spring of an

immense ancient arch, analogous to Robinson's arch. It introduces quite a new element in the complicated problem of the Jewish Temple. Mr. Wrightson, an English engineer, concludes that the two arches or bridges formed part of a continuous system of parallel arches which occupied, between the two east and west walls, the substructure of the entire southern part of the esplanade of the temple. Mr. Schick's investigations are carefully noticed. Finally praise is given to the new publication of the Abbé Vigouroux, *Dictionnaire de la Bible*.

ARABIA.

A HISTORY OF YEMEN.—The British Museum acquired in 1886 the MS. of Omārah's 'History of Yemen,' a work of which it was long feared that no copy was at the present day in existence. Omārah's 'History' extends over a period of about three hundred and fifty years. It commences with the foundation of the city and principality of Zabid in the ninth century, and extends down to the eve of the conquest by the Ayyūbites in the twelfth. Mr. Henry C. Kay, a member of the Council of the Royal Asiatic Society, has prepared the MS. for publication, together with an English translation, notes and indices. The volume also contains, besides other similar matter, an account and genealogical list of the Imāms of Yemen, down to the thirteenth century, derived from the Zeydite MSS. recently added to the British Museum library.—*Athenæum*.

COINS OF THE BENU RASOOL DYNASTY OF SULTANS.—Out of the fourteen sovereigns who composed the Benu Rasool dynasty, we are in possession of the coins of only eight, and these the first eight; their inscriptions are in Arabic, and it is by no means easy to decipher all of them. The mints of these are: Aden, Zebīd, El-Mahdjām, Thabat, Sana and Taiz, and each is characterized by a particular figure, a fish for Aden, a bird for Zebīd, a lion for El-Mahdjām, and other symbols. There are also noticed several coins struck by rebels under the Benu Rasool dynasty.—*Revue Numismatique*, III s. tom. 10, III trim. 1892, p. 350.

BABYLONIA.

A BAS-RELIEF OF NARAM-SIN.—At a meeting of the *Acad. des Inscriptions* M. Maspero exhibited a photograph of a Chaldean bas-relief from Constantinople. It was erected by, and bears the name of King Naram-sin, who reigned over Babylonia about 3800 B.C. Though much mutilated, what remains shows workmanship of a refined kind. It represents a human figure standing, clothed (as on the most

ancient cylinders) with a robe that passes under one arm and over the shoulder, and wearing a conical head-piece flanked with horns. The general appearance strikingly recalls Egyptian monuments of the same date. The relief is extremely low, the lines clear, but not stiff. There is no muscular exaggeration as is often the case in the cylinders. Naram-sin, like his father, Sargon I, has left the reputation (perhaps legendary) of a great conqueror; a campaign against Magan is attributed to him. M. Maspero was disposed to explain the style of the bas-relief by the Egyptian influence. It differs widely from the sculptures of Telloh, which are less refined and artistically advanced. But these, though of later date, come from a provincial town, not from a capital. M. Menant mentioned that the collection of M. de Clerq contains a cylinder, also of remarkable workmanship, with an inscription with characters of the same style as those on the bas-relief in question; but it bears the name of Sargani, king of Agyadi, who is several generations earlier than Sargon I. Both of these are examples of an art which was never surpassed in Chaldea.—*Academy*, Oct. 15; *Chron. des Arts*, 1892, No. 33.

TELLOH.—**BABYLONIAN SCULPTURE.**—The later excavations of M. de Sarzec at Telloh, in so far as they concern sculpture, are treated by M. Heuzey in some communications to the *Acad. des Inscriptions*. M. de Sarzec has reconstructed from some fragments a series of reliefs relating to King Ur-Nina, the ancestor of King E-anna-du, who is commemorated in the *stele of the vultures*. The sculptures of Ur-Nina are of rude and primitive workmanship and belong to the earliest period of Babylonian sculpture. The king is represented more than once, either carrying on his head the sacred basket, or seated and raising in his hand the drinking-horn. Around him are ranged his children and servants, all with their names inscribed upon the drapery. Among them is A-kur-gal, who is to succeed his father, replacing another prince, his older brother. The reunion of these fragments has given us an historic and archæological document of the highest antiquity.—*Revue Critique*, 1892, No. 44.

At a meeting of the *Acad. des Inscr.* M. Heuzey read a paper upon the "Stèle des Vautours." M. de Sarzec has been able to find and piece together several additional fragments, from which it appears that the name of the person who set up the pillar was E-anna-du, king of Sirpula, son of A-kur-gal, and grandson of King of Ur-Nina. He is represented in front of his warriors, beating down his enemies, sometimes on foot, sometimes in a chariot, of which only a trace remains. The details of the armor resemble in some respects that of

the Assyrians of a much later date. From what can be read of the inscription, it seems that the conquered enemies belonged to the country of Is-ban-ki. There is also mention of a city of Ur, allied with Sirpula. The pillar was sculptured on both faces. On the reverse is a royal or divine figure, of large size, holding in one hand the heraldic design of Sirpula (an eagle with the head of a lion), while the other brandishes a war-club over a crowd of prisoners, who are tumbling one over another in a sort of net or cage. In illustration of this scene, M. Heuzey quoted the passage from Habakkuk (i. 15), describing the vengeance of the Chaldeans: "They catch them in their net and gather them in their drag."—*Academy*, Sept. 3.

THE BABYLONIAN STANDARD WEIGHT.—Prof. Sayce writes: "Mr. Greville Chester has become the possessor of a very remarkable relic of antiquity, discovered in Babylonia, probably on the site of Babylon. It is a large weight of hard green stone, highly polished, and of a cone-like form. The picture of an altar has been engraved upon it, and down one side runs a cuneiform inscription of ten lines. They read as follows:

"One maneh standard weight, the property of Merodach-sar-ilani, a duplicate of the weight which Nebuchadrezzar, king of Babylon, the son of Nabopolassar, king of Babylon, made in exact accordance with the weight [prescribed] by the deified Dungi, a former king."

The historical importance of the inscription is obvious at the first glance. Dungi was the son and successor of Ur-Bagas, and his date may be roughly assigned to about 3000 B. C. It would appear that he had fixed the standard of weight in Babylonia; and the actual weight made by him in accordance with this standard seems to have been preserved down to the time of Nebuchadrezzar, who caused a duplicate of it to be made. The duplicate again became the standard by which all other weights in the country had to be tested.

The fact that Dungi is called "the deified" is not surprising. We know of other early kings of Chaldaea who were similarly raised to the rank of gods. One of them prefixes the title of "divine" to his own bricks; another, Naram-Sin, the son of Sargon, of Accad, is called "a god" on the seal of an individual who describes himself as his "worshipper." It is possible that in this cult of certain Babylonian kings we have an evidence of early intercourse with Egypt."—*Academy*, Dec. 19.

CATALOGUE OF BRITISH MUSEUM TABLETS.—Stored in the British Museum are some 50,000 inscribed pieces of terracotta or clay-tablets, forming the libraries of Assyria and Babylonia. The great impetus

given to cuneiform studies has made it necessary that the tablets should be catalogued, and the trustees have now issued a descriptive catalogue of some 8,000 inscribed tablets. The inscriptions in question come from the Kuyuryik Mound, at Nineveh. The tablets embrace every class of literature, historical documents, hymns, prayers and educational works, such as syllabaries or spelling-books, and dictionaries. The catalogues, of which the second is just issued, are prepared by Dr. Bezold.—*Biblia*, Sept., 1892.

ASHNUNNAK.—M. Pognon, French Consul at Bagdad, has announced to the *Acad. des Inscriptions* that he has discovered the exact location of the region called anciently the land of Ashnunnak. He declares that he is not yet ready to announce his discovery more exactly, but publishes several bricks with the names and titles of several princes of Ashnunnak hitherto unknown. These are Ibalpil, Amil and Nulaku.

PERSIA.

M. DE MORGAN'S RESEARCHES IN PERSIA AND LURISTAN.—In a communication to the *Acad. des Inscr.* M. de Morgan gives a report upon his mission in Persia and Luristan, of which the following are a few extracts. "In the valley of the Lar, I made a study of the subterranean habitations excavated in the rock and made a plan of the very ancient castle, Molla-Kölo, which once defended the pass of Vahné. Finally, in the ravine called *Âb-é-pardöma*, I discovered in the alluvion some stone instruments presenting very ancient paleolithic characters. At Amol, I studied the ruins of the ancient city and gathered some interesting collections containing quite a number of pieces of pottery and some bronzes of the XIV century." "Near Asterabad there is a mound called *Khaighruch-tépè*. I attempted to make some excavations of this point; unfortunately my work here was arrested by order of the Persian government just when, after twenty days of working with sixty laborers, I had reached a depth of 11½ meters. In this excavation I found some human bones, some pottery, some whorls and some thin objects composed of bronze much decomposed; all in the midst of ashes and cooking-debris. At the bottom was a skeleton stretched upon a very regular bed of pebbles, and I am of the opinion that *Khaighruch-tépè* was primitively raised as a tomb and afterwards served for the construction of a village, the successive ruins of which coming to increase the importance of the mound. At a depth of 11½ meters I found more cinders and debris, indicating that I had not yet come to the level of the earliest works." "The *tépès* are near together in the eastern part of the Mazanderan and in

the Turkoman steppe; but in the Lenkoran, the Ghilan and the western Mazanderan they are entirely wanting. It is concluded from this observation that the people who built here were not aborigines of the north of Persia, but that their migration moreover has left traces on the right and on the left of the Caspian. The Scythians of Herodotus present a very satisfactory solution for the problem of the Caspian *tépès*." . . . "From an archæological point of view the Lenkoran was absolutely virgin soil and the finding of the first tomb was not an easy task. Finally, after long and minute research in the forests, I discovered the necropolis of Kravelady, composed of dolmens almost completely despoiled, but in sufficiently good condition to permit me to organize the natives in research for burial places of the same sort. I at first encountered much repugnance on the part of the inhabitants to excavate the tombs; finally, with some money and very long explanations, I brought them to terms and, thanks to my tomb-hunters, I found and excavated the necropolis of Horil, Beri, Djonû, Tûlû, Mistaïl, Hiveri, *etc.* These tombs present, according to their age, very different characteristics; the most ancient and at the same time the largest, contain rude arms of bronze. Those of the period following show the bronze well worked, iron, gold and silver being employed as jewels. Although we saw iron in very small quantities in the tombs of the second period, it is not until the third that it appears as the material of arms; at the same time, the jewels take the forms of animals, which change, as I have shown in the case of Russian Armenia in my preceding mission, indicates the appearance of a strange tribe possessed of special arts. During the last epoch all the arms are of iron. The pottery found in the tombs is glazed.

"As to the form of the monuments, it is very variable at different ages; there are some covered passages or chambers completely closed, some dolmens with openings like those of India. At the very time when my excavations were attaining their greatest importance I was compelled to discontinue them by order of the Russian administration and was obliged to leave the country, having only made a beginning in archæology. An *ukase* of the Czar reserves the excavations in all his great empire for the Archæological Society of St. Petersburg. But this interdict did not arrive until after I had excavated about two hundred and twenty tombs, so that we now possess more than fifteen hundred objects, vases, arms, trinkets of gold, bronze, silver, *etc.*

"At Moukri, thanks to the kindness of a Kurd chief, I was enabled to excavate a tomb which, although it held no objects of value, still

contained some interesting relics. I have not yet been able to assign a date to any of them." "During my stay at Moukri I set up a map on the scale of $\frac{1}{250000}$, and marked upon it all the ruins, mounds and ancient tombs.

"Although blockaded by snow at Hamadan I was able to visit the ancient Ecbatana and there acquired a small collection of Greek jewels and Chaldean cylinders. I found no trace whatever of the ancient palace; they told me that the last debris had been reduced to lime and that houses had been built over the rest. On the other hand, the trilingual inscription of the Elvend, the *Ghendj-nâmêh*, is still admirably preserved, but the cold prevented me from taking a squeeze. After having visited and photographed the ruins of Dinâver, Kîngârer, Bisoutoun and several remains encountered on the route, I visited Tagh-é-Bostan, near Kirmanshahan; I took numerous photographs and squeezes of the more interesting fragments, like the pahlavi inscriptions of the smallest monument. At Zohab, I took the inscriptions of Ler-é-poul and of Hourin-cheïkh-khan, made plans of the ruins of Ler-é-poul, those of the Sassanian palace of Kasr-é-Chirion and of Haouch-Ruri; drew up a map on a scale of $\frac{1}{250000}$ of the gates of the Zagros, and of the country around." "Having arrived at Houleilan, I found the remains of a large number of towns and castles of the Sassanian epoch, besides some very ancient *téps*. At Chirvan, near the fort of the Poncht-é-Kouh, are the ruins of a Sassanian town. I made a plan of it. Near it is a great *tell* of unburnt brick. In the valleys, situated near the plain, in the passes are some *tells*, and it is near one of them that I had the good fortune to find more than eight hundred objects carved in flint. Beyond these *tells* which guard the frontier of the Semite border, the Poncht-é-Kouh does not contain a single ruin. In antiquity, as to-day, it was inhabited by nomads. On leaving the Poncht-é-Kouh, I entered the valley of the Kukha, where I encountered numerous ruins. I then advanced into Louristan, continually finding *tells*, of which the principal ones are those of Zakha and of Khorremâbâd. Finally arriving at Susiana, we again found civilization, but also a country well known and that does not form a part of my mission."—*Journal Asiatique*, No. 2, 1892, pp. 189-200.

COINS OF THE SATRAPS.—1. Money had been invented and was in circulation in the Greek cities of Asia Minor almost two hundred years, when Darius I introduced the daric. The Greek coins in circulation along the coast had not penetrated far from the Mediterranean, even the new Persian coinage was used chiefly in the commerce with the Greeks on the frontier, and for the payment of Greek mercenaries,

enrolled in the armies of the Great King. The interior of the empire, during the whole period of the Achæmenidæ, continued to employ wedges of precious metals in exchange. The coinage of the Persian empire divides into four clearly defined groups, according to the direct authority of its issue. (1) The coinage of the Great King; (2) The coinage of the tributary Greek towns; (3) The coinage of the tributary dynasties; (4) The coinage occasionally struck for the satraps, chiefs of the Persian army. It is the last category that is described in the paper here summarized. The towns then, and the tributary dynasties, and, under some circumstances, the satraps enjoyed the right to coin money but only in electrum, silver and bronze; the great King reserved the exclusive right to issue coins in gold; and this principle became universally acknowledged, so that gold effectually became the unique standard of the Persian empire. The few departures from this rule are not worthy of consideration. The towns of Asia Minor paying tribute to the great King continued to issue money, just as they had during their independence, retaining their own types, and betraying in no way their subjection. The tributary kings placed under the surveillance of satraps were allowed various degrees of liberty in issuing coinage, according to their countries and to their varying relations to the Persian monarch; the dynasties of Caria, of Cyprus, of Gebal and of Tyre, like the tributary cities mentioned above, continued their old coinage, while those of Sidon and of Cilicia placed upon their coins, the figure of the Achæmenidean prince.

Besides the coinage already mentioned there exists a number of coins bearing the names of satraps, and the questions are raised, under what circumstances were these issued, and with what extraordinary powers was a satrap invested, who was permitted to issue money in his own name? The theory is advanced, that the satraps of the Persian empire never held the right to coin money in their capacity as satraps. All the instances we have of satrapal coins were issued by satraps invested with the command of armies. Fr. Lenormant says: "All the pieces known, which bear the names of high functionaries of Persia, mentioned in history, particularly those of Cilicia, should be ranged in the class of military coins; that is, coins issued by generals placed at the head of armies, on a campaign, and not as satraps exercising their regular powers." The only satrapies in which money was coined, before Alexander, are the following. The sixth satrapy, which comprised Egypt and Cyrenaica. The fifth satrapy or that of Syria, comprising Arabia, Mesopotamia, Syria, Phœnicia, Palestine and the island of Cyprus. The fourth satrapy or that of Cilicia, which acquired in the v century the states north of the Taurus. The

first satrapy or that of Ionia, comprising Pamphilia, Lycia, Caria, Pisidia, Ionia and Eolis. The twelfth satrapy, known as the satrapy of Sardis, or of Lydia. The thirteenth satrapy, known also as the satrapy of Phrygia, which comprised, besides the coast of the Hellespont, all the central region of Asia Minor between the Taurus and the Black Sea. This huge province was divided in the fifth century into the satrapies of Greater Phrygia, Lesser Phrygia, and Cappadocia.

2. The coinage in circulation in Egypt, during the Achæmenidean supremacy was all of foreign origin, the staters of the Kings of Tyre and Sidon and the tetradrachmas of Athens. The commerce with Greece, and especially the incessant wars in which Greek mercenaries were largely employed, tended to make Athenian silver popular in the eastern countries. For the pay of these mercenaries, the Persians and Egyptians had recourse to silver money, and especially to those types with which the Greeks were acquainted. Thus the prevalence of Athenian coins in the Orient is accounted for by these circumstances. The generals of the Persian and Egyptian armies made use of the Athenian coins which had long been in circulation in the country. They merely imprinted upon the coin of Attic origin a counter-mark to officially authorize the circulation, and when the original Athenian coins in the country were insufficient to pay the troops, they struck off others as nearly like them as possible—these, however, are easily recognized by the defects of workmanship and altered inscriptions. One sort has in place of the Greek lettering an Aramean inscription. On a certain number of these we find the name Mazaïos, the famous satrap of Cilicia, who undertook to subdue the insurgent king of Sidon.

The imitation of Athenian coins and the coins of Alexander was continued in Arabia down to the first century of our era. The Athenian coins were not the only ones copied in Egypt, Palestine, and Arabia. The coinage of the kings of Sidon were frequently imitated by the Aramean chiefs, of whom Bagoas was one. Then, too, the kings of Sidon had supreme command of the imperial fleet and had the paying of the naval army. Later, Mazaïos, placed at the head of the Persian army, for a time imitated the Sidonian coins, substituting his name for that of the Sidonian dynasty. Bagoas, in turn, did likewise.

3. In Phœnicia and northern Syria, which formed the greater part of the fifth satrapy, a great quantity of coins were struck off by the tributary dynasties. The kings of Tyre, Sidon, Gebal, and Aradus had their own coinage, but there seems to have been no satrapal coinage struck off in Phœnicia. In northern Syria, when Mazaïos

added this satrapy to his own, he levied and assembled troops from that entire region; this accounts for the numerous issues of coins in northern Syria at that time.

4. The dynasties of Cilicia coined money under the same conditions as did the cities of Phœnicia, Caria and Lydia. The chief mint of Cilicia was at Tarsus, but money was also coined at Soli and at Mallus. About the end of the fifth century a coinage was issued from these mints which is ascribed to uncertain satraps. The distinguishing mark of these coins, according to Mr. Waddington, is the use of the neuter adjective in *ακορ*, but this theory is not conclusive. Besides these anonymous coins there were others coined in Cilicia bearing the names of satraps, who were the envoys of the great king to raise armies and equip fleets. The satrap Tiribazus employed the mints at Issus, at Soli and Mallus; the satrap Pharnabazus established his mints in various cities in Cilicia, particularly at Nagidus; Datamus also issued coinage in Cilicia. M. Six holds that Mazaios coined money, not only in Cilicia, but also in Syria and Mesopotamia, and preserved the right to a coinage under Alexander, but always in a military capacity.

5. After the conquest of Alexander, his generals issued coinage under his name in their satrapal authority. These were the coins of Alexander, bearing on one side the particular symbol of the generals who had issued them; there were the eagle of Ptolemy, the demi-lion of Lysimachus or the horned horse of Seleucus. Those of the generals who became kings, in 306, issued coins in their own name, preserving on them the personal emblems which they had employed in their satrapal authority. The generals who did not become kings never issued a coinage in their own names.

6. On the island of Cyprus are found numerous coins which present all the distinctive signs of satrapal money; they are believed to have been struck by Evagoras II, the successor of Nicocles I; but the question arises, Were these satrapal pieces of Evagoras coined on the island? It has been held that they were issued from a mint on the continent, in Caria, because the army of Evagoras was recruited in Asia Minor, and because their weights are Rhodian, but the form of the letters is Phœnician, as upon all Cypriote coins; while, on the other hand, in Asia Minor the Semitic money is inscribed with Aramean characters. Moreover, all symbols and types which figure on these coins are essentially Cypriote.—E. BABELON in *Revue Numismatique*, 1892, p. 277.

SASSANIAN COINS.—The Museum of the Hermitage has just come into possession of the collection of coins of General Komarof, once

governor of Russian Turkistan. It consists of more than two thousand pieces, of which sixty are of gold. The most remarkable coins of this rich collection are: Four Sassanian pieces in gold, unpublished, (one of Hormuzd II and three of Sapor II), a dinar of Nasr I, a dinar of Kharmezi of Tamerlan, a dinar of Abdallah-ben-Khazim, and about fifty unpublished Sassanian silver coins.—*Revue Numismatique*, 1892, p. 348.

PERSEPOLIS.—CASTS OF SCULPTURES.—The English archaeologist Mr. Cecil Smith has lately returned from an expedition to Persia. He had with him two Italian makers of casts, and by their means has obtained a valuable series of casts of the sculptures of Persepolis from moulds of a fibrous Spanish paper. Among the casts are those of a long frieze (perron) which decorated the stairway of the main hall or "apadâna," erected by Xerxes; it represents a procession of figures presenting to the king the reports of his governors and the offerings of his subjects. Another cast is that of the famous monolith of Cyrus.—*Chron. des Arts*, 1892, No. 31. We understand that the collection of casts of the Metropolitan Museum is to receive a copy of all these casts.

SYRIA.

EDESSA.—HISTORICAL SKETCH.—M. Rubens Duval, the eminent Syriac scholar, has been publishing in the *Journal Asiatique* a history of the city of Edessa under the title: "*Histoire religieuse et littéraire d'Edesse jusqu' à la première Croisade*, (*Jour. As.* t. 18, No. 1 to t. 19, No. 1). This monograph has been crowned by the French Academy. It includes a considerable amount of information concerning the monuments of the city, especially those belonging to the early Christian period, and some idea can be gained of them by the following abridged note. As Edessa was one of the principal cities of the Christian East, the information is of interest. Edessa was from its position a fortress of the first rank and reputed impregnable. The citadel rose on a peak on the south-west angle of the rampart. At the west end there still remain two columns with Corinthian capitals, one of which bears an inscription with the name of Queen Shalmat, daughter of Ma'nu, probably the wife of King Abgar Ukhamā. Within the citadel, on the great square called Beith-Tebhara, King Abgar VII built, after the inundation of 202, a winter palace, safe from the river floods, and the nobles followed his example. In the city itself were the porticoes or forum near the river, the Antiphoros or town-hall, restored by Justinian. In 497, the governor of the city, Alexander, built a covered gallery near the Grotto Gate and Public Baths, near the public store-

house; both the summer and winter baths were surrounded by a double colonnade. To the south, near the Great Gate, were other baths, and near them the theatre. Within the Beth Shemesh Gate was a hospital and outside it a refuge for old men. North of the city, near the wall, was the hippodrome, built by Abgarus IX on his return from Rome. The city had six gates which still exist under different names.

Edessa is one of the few cities that are known to have had a Christian church as early as the second century. This church was destroyed by the inundation of 201, was then rebuilt, being the only church in the city, suffered from the inundation of 303 and was rebuilt from its foundations in 313 by Coña, bishop of Edessa, and his successor Sa'd. It was called the Ancient Church, "the cathedral," also sometimes the Church of St. Thomas, because in 394 it received the relics of the apostle Thomas. The Frankish pilgrim woman who visited it at the close of the fourth century, or later, speaks of its size, beauty and the novelty of its arrangement. Duval believes her words to relate to Justinian's building, believing in a later date than is usually assigned to the above document. In 525 the church was overthrown by an inundation and then rebuilt by Justinian in such splendor as to be regarded as one of the wonders of the world. It was overthrown by earthquakes in 679 and 718.

The other churches were as follows :

- 370. The Baptistery is built.
- 379. Church of S. Daniel or S. Domitius, built by Bishop Vologese.
- 409. Church of S. Barlaha, built by Bishop Diogenes.
- 412. Church of S. Stephen, formerly a Jewish synagogue, built by Bishop Rabbula.
- 435. The New Church, called later the Church of the Holy Apostles, built by Bishop Hibhas.
- " Church of S. John the Baptist and S. Addæus, built by Bishop Nonnus († 471), successor of Hibhas.
- " Church of S. Mar Cona.
- 489. Church of the Virgin Mother of God, built on the site of the School of the Persians after its destruction in 489.
- c.505. Martyrium of the Virgin, built by Bishop Peter early in vi century.

Outside the walls were the following churches :

- Towards the N. Chapel of SS. Cosmas and Damian, built by Nonnus (middle v century).
- E. Church of SS. Sergius and Simeon, which was burned in 503 by the Persian King Kawad.

W. Church of Confessors, built in 346 by Bishop Abraham, and burned by Kawad in 503.

Church of the Monks, near the citadel.

The cliffs to the west had been from early times excavated for burial purposes. In the midst of the tombs rose the mausoleums of the family of the Abgars, especially that of Abshelama, son of Abgarus. They were also honeycombed with anchorites' cells. This mountain received the name of the Holy Mountain and was covered with monasteries, among which were the following: Eastern Monks; S. Thomas; S. David; S. John; S. Barbara; S. Cyriacus; Phesilta; Mary *Deipara*; of the Towers; of Severus; of Sanin; of Kuba; of S. James. Arab writers mention over 300 monasteries around Edessa. Two aqueducts, starting from the villages of Tell-Zema and Maudad to the north, brought spring-water to the city; they were restored in 505 by Governor Eulogius.

Bishop Rabbulas (412-435) built a hospital for women from the stones of four pagan temples which were destroyed. He destroyed the church of the sect of Bardesanes and the church of the Arians, erecting other structures with their materials. After the Persian wars (505) Eulogius, governor of Edessa, rebuilt many of the damaged public monuments. He repaired the outer ramparts and the two aqueducts; rebuilt the public baths, the prætorium, and other structures. The bishop, Peter, restored the cathedral and built the Martyrium of the Virgin, and also covered with bronze one of the cathedral doors. Justinian restored and rebuilt many buildings after the inundation of 524-25. Even under the early period of Muhammadan rule the Christian structures were cared for. Under the Khalif Abd-el-Malik (685-705) the Edessene Christian Athanasius, who enjoyed great political influence, rebuilt the Church of the Virgin, which was on the site of the School of the Persians; rebuilt also the Baptistery in which he placed the portrait of Christ sent to Abgarus and placed in it fountains like those of the Ancient Church, decorating it also with gold, silver and bronze revetments. He also built two large basilicas at Fostat in Egypt. There is an interesting account of an artistic treasure of great value discovered in a house belonging to a noble family of the Goumêaus in 797 and belonging to the Roman and Byzantine period; it is supposed to have been hidden in 609. The churches were often destroyed and rebuilt according to the tolerance or intolerance of the Muhammadan governors. At one period of persecution, c. 825, a mosque was built in the *tetrapylum* in front of the Ancient Church. It is not important to trace the vicissitudes of the building of Edessa any further.

COINS OF THE KINGS OF EDESSA.—Marquis de Vogué sends to M. E. Babelon a description of a bronze coin brought from Syria, found either in the province of Alep or of Damas. It bears the name of Abgarus, the name of several of the kings of Edessa. The type is that of the small bronze pieces attributed to Mannou VIII; the character and inscriptions are the same. It must then be attributed to a king Abgarus whose reign approaches as nearly as possible that of Mannou VIII. Mr. Rubens Duval, in his history of Edessa, mentions two kings of this name, Abgarus VIII, whose reign cut into that of Mannou VIII, and Abgarus IX, who succeeded him. It is to one of these two princes that this coin must be assigned. It is possible that this monument may shed some light upon a portion of Oriental chronology, hitherto very dark. Two other coins are described from M. Vogué's collection, one of which, it seems, should be attributed to the same king Abgarus as the preceding; the other bears a name which M. Duval assigns to Abgarus XI, who reigned for two years during a short restoration of the government of Edessa.—*Revue Numismatique*, 1892, p. 209.

SINJIRLI.—SEMITIC INSCRIPTIONS.—The German Oriental Committee discovered, as is well known, an ancient city buried under a number of mounds at a place called Sinjirli in the Amanus Mountains. Here were found a number of statues bearing cuniform inscriptions, Hittite inscriptions and two long Aramean inscriptions of the VIII or IX century B. C.

M. Helévy, the well-known French Orientalist, was sent by the Paris Institute to the Museum of Berlin, where these statues are placed, to report upon the inscriptions. M. Helévy finds that the two kings were rulers of Yadi and that their reigns were a century apart. The first statue is that of Panémon, founder of his dynasty—a 40 line inscription relates the events of his reign, the protection of the Jews, *etc.* The second is a king who was a vassal of Tiglath-Pilezer, king of Assyria. The inscription describes wars of his father, his own relations with Assyria, his defeats and victories. It gives an account of his own reign and terminates by invoking the protection of the gods.

M. Helévy says that these inscriptions are not in the Aramean language, as was first supposed, but a Phœnician dialect very analogous to Hebrew, which was spoken by the people whom the Assyrians named Hatte, that is to say, Hittites or Hetheim. He adds that the current opinion as to their not being of Semitic race is quite erroneous and that the hieroglyphics discovered in various parts of Asia Minor are of Anatolian and not of Assyrian origin, the few texts of this kind found at Hamath and Aleppo being due to Anatolian conquerors,

whose domination, however, was very temporary in character.—*Journal of the Royal Asiatic Society*, 1892, Oct., p. 887.

NAMES OF CITIES AT MEDINET HABÛ.—Prof. Sayce writes: The list of places conquered by Rameses III in Palestine and Syria, which I copied on the pylon of Medinet Habû, turns out to be even more interesting than I had supposed, as a whole row of them belongs to the territory of Judah. Thus we have the "land of Salem," which, like the Salam of Rameses II, is shown by the Tel-el-Amarna tablets to be Jerusalem, *arez hadast*, or "New Lands," the Hadashah of Joshua (xv. 37), Shimshana or Samson, "the city of the Sun" (Josh. xv. 10), Carmel of Judah, Migdol (Josh. xv. 37), Apaka or Aphekah (Josh. xv. 53), "the Springs of Khibur" or Hebron, Shabuduna, located near Gath, by Thothmes III, and Beth-Anath, the Beth-Anoth of Joshua (xv. 59). The discovery of these names in the records of an Egyptian king, who reigned about 1200 B. C., raises a question of some interest for students of the Old Testament.—*Academy*, April 2.

JAFFA.—The Committee of the Palestine Exploration Fund have received through Mr. Bliss a squeeze of a long inscription stated to have been recently discovered at a place not far from Jaffa, which appears to contain about 250 letters in the Phœnician character.—*Academy*, March 5.

JERUSALEM.—A BYZANTINE BRACELET.—Mr. Maxwell Somerville of Philadelphia has added to his collection a large bronze bracelet found near Jerusalem and bearing a Greek inscription. It was communicated to the *Acad. des Inscr.* by M. le Blant. At one end of the inscription is a lion *courant*, at the other a serpent *rampant*. On the left end is soldered a small round plaque on which is engraved a subject identical with that found on some of the amulets published by M. Schlumberger in the *Rev. des Études Grecques* (see under *Byzantine Amulets* in Greek news of this number). A mounted warrior—whom Mr. Schlumberger identifies as Solomon—pierces with his lance a prostrate female figure who apparently represents the devil, a "Fra Diavolo."—*Chron. des Arts*, 1892, No. 23.

RETHPANA—DEAD SEA.—Prof. Sayce has discovered at Medinet Habû the Egyptian name of the Dead Sea. Between the names of Salem and Yerdano and the Jordan comes "the lake of Rethpana." As the Dead Sea is the only "lake" in that part of the world, the identification of the name is certain. Rethpana could correspond with a Canaanite Reshpôn, a derivative from Reshpu, the sun-god, who revealed himself in flames of fire.—*Academy*, May 14.

TEL-EL-HESY-LACHISH.—CUNEIFORM TABLET.—We quote from a letter written to the times by Mr. James Glaisher, chairman of the executive committee of the Palestine Exploration Fund:—

"The excavations commenced two years ago by Dr. Flinders Petrie at a mound in Palestine named Tell-el-Hesy have been continued during the last six months by Mr. F. J. Bliss, of Beirût. The Tell has been identified by Major Conder and Dr. Flinders Petrie with the ancient city of Lachish, an identification which is now amply confirmed.

"Mr. Bliss has found among the *débris* a cuneiform tablet, together with certain Babylonian cylinders and imitations or forgeries of those manufactured in Egypt. A translation of the tablet has been made by Prof. Sayce; it is as follows:—

'To the Governor. [I] O, my father, prostrate myself at thy feet. Verily thou knowest that Baya (?) and Zimrida have received thy orders (?) and Dan-Hadad says to Zimrida, "O, my father, the city of Yarami sends to me, it has given me 3 *masar* and 3... and 3 *falchions*." Let the country of the King know that I stay, and it has acted against me, but till my death I remain. As for thy commands (?) which I have received, I cease hostilities, and have despatched Bel(?)*-banilu*, and Rabi-ilu-yi has sent his brother to this country to [strengthen me (?)].'

"The letter was written about the year 1400 B. C. It is in the same handwriting as those in the Tell-el-Amarna collection, which were sent to Egypt from the south of Palestine about the same time.

"Now, here is a very remarkable coincidence. In the Tell-el-Amarna collection we learn that one Zimrida was governor of Lachish, where he was murdered by some of his own people, and the very first cuneiform tablet discovered at Tell-el-Hesy is a letter written to this Zimrida.

"The city Yarami may be the Jarmuth of the Old Testament.

"'Even more interesting,' writes Prof. Sayce, 'are the Babylonian cylinders and their imitations. They testify to the long and deep influence and authority of Babylon in Western Asia, and throw light on the prehistoric art of Phœnicia and Cyprus. The cylinders of native Babylonian manufacture belong to the period B. C. 2000-1500; the rest are copies made in the West. One of these is of Egyptian porcelain, and must have been manufactured in Egypt, in spite of its close imitation of a Babylonian original. Others are identical with the cylinders found in the prehistoric tombs of Cyprus and Syria, and so fix the date of the latter. On one of them are two centaurs arranged heraldically, the human faces being shaped like those of birds. European

archæologists will be interested in learning that among the minor objects are two amber beads."—*Academy*, July 9.

The *Quarterly Statement* of the Palestine Exploration Fund for April contains a detailed report of Mr. F. J. Bliss's excavations at Tell-el-Hesi, the site of Lachish, during last winter, illustrated with several plans and woodcuts. The most interesting objects found were a number of bronze weapons, and fragments of pottery with markings, both from the lowest or Amorite town. Mr. W. M. Flinders Petrie adds a note on the weights discovered, almost all of which belong to the Phœnician and Aeginetan systems.

ARMENIA.

SEALS OF KING LEO II AND LEO V.—At a meeting of the *Acad. des Inscri.* M. Schlumberger communicated three magnificent bulls or gold seals of Leo II, king of Lesser Armenia. These gold bulls, appended to letters from this king to Pope Innocent III, written early in the XIII century, are preserved in the Vatican archives, and are probably the only examples of the king in existence. Leo II, in royal costume, is on one side; the lion of Armenia on the other. Another royal Armenian seal is preserved in the Bibliothèque Nationale. It is that of Leo V, the last king of the dynasty, who died, an exile, in Paris.—*Chron. des Arts*, 1892, No. 6.

CAUCASUS.

THE IRON AGE.—M. Ernest Chautre has given a statement of his ideas on the iron age in the Caucasus and elsewhere in a pamphlet entitled, *Origine et Ancienneté du premier âge du fer au Caucase*, Lyon, 1892. He says: "Necropoli of unequalled richness have been discovered in the Great Caucasus and on several points of Transcaucasia. These necropoli, in which inhumation appears to have been almost exclusively used, should be divided into two large groups. The most ancient corresponds to the Hallstatt period; the later to the Scythian period in the East and the Gallic period in the West. The Hallstatt type or that of the first iron age is met with especially in the most ancient tombs of the necropolis of Kobau, in Ossethia; those of the second iron age are to be found essentially in the necropolis of Kambylte in Digouria and certain localities of Armenia. The first iron age was introduced into the region of the Caucasus between the XX and XV century B. C. by a dolichocephalic population of Mongolo-Semitic or Semito-Kushite and not of Iranian origin. It was transformed toward the VII century by the invasion of a brachycephalic Scythian people of Ural-Altaïc origin.

ANI.—The Russians are excavating at Ani, in Turkish Armenia, the ancient capital. They have found some ecclesiastical and other antiquities.—*Athenæum*, Sept. 3.

ASIA MINOR.

PRIVATE GREEK COINAGE BY REFUGEES.—The Persian kings accorded to certain illustrious Greeks who had sought refuge in Asia Minor on Persian territory the right to coin money. To this they joined the privileges inherent in the title of hereditary despot which was granted to them. The principal coinages are those of Themistokles at Magnesia, of Georgion at Gambrium, and of Euriphenes at Pergamon. M. Babelon read a memoir on the subject before the *Soc. des Antiquaires*, giving genealogical details regarding those families of exiles.—*Chron. des Arts*, 1892, No. 16.

COMPARISON OF HITTITE AND MYCENÆAN SCULPTURES.—M. Heuzey has read before the *Acad. des Inscr.* (Oct. 14) a comparative study on an engraved gold ring found at Mycenæ and a relief in the Louvre which belongs to the series of Hittite reliefs and was found at Khar-pout, in the Upper Euphrates region on the frontier of Armenia and Cappadocia. The relief is surmounted by two lines of ideographic inscription. The subject on both is a stag-hunt; the stag is hunted in a chariot, as was always done before the horse was used for riding, that is before the VIII century B.C. The relief is a rustic variant of the Assyrian style; certain details prove it to belong to the IX century. The stag is of the variety called *humour* by the Arabs, characterized by horns palm-shaped at their extremities. On the ring the attitudes are far more lively and bold, but the identity of the subject is none the less striking.—*Revue Critique*, 1892, No. 43.

HITTITE INSCRIPTION.—M. Menant has communicated to the *Acad. des Inscr.* (Aug. 7, 1891,) a new Hittite inscription, noted during the preceding summer, in the pass of Bulgar-Maden, in Asia Minor. It is in perfect preservation and of unusual length, and is therefore of great value for the study of the Hittite language. M. Menant sees at the beginning the genealogy and titles of a prince, some other of whose inscriptions have already been found; then an invocation to the patron divinities of his kingdom; then the main body of the inscription, which will doubtless be the most difficult to decipher; and at the close a re-enumeration of the divinities already invoked.—*Revue Critique*, 1891, No. 35-6.

THE DECIPHERMENT OF THE HITTITE INSCRIPTIONS.—Prof. Sayce writes: "I have, I believe, at last succeeded in breaking through the

blank wall of the Hittite decipherment. Twelve years ago, with the help of the bilingual text of Tarkondêmos, I advanced a little way, but want of material prevented me from going further. At length, however, the want has been supplied, and new materials have come to hand, chiefly through the discoveries of Messrs. Ramsay, Hogarth, and Headlam in Asia Minor. The conclusions to be derived from the latter are stated in an article of mine which has just been published in the last number of the *Recueil de Travaux relatifs à la Philologie et à l'Archéologie égyptiennes et assyriennes*. Since that article was written, I have once more gone through the Hittite texts in the light of our newly-acquired facts, and have, I believe, succeeded in making out the larger part of them.

As in the languages of Van, of Mitanni, and of Arzana, the Hittite noun possessed a nominative in *-s*, an accusative in *-n*, and an oblique case which terminated in a vowel, while the adjective followed the substantive, the same suffixes being attached to it as to the substantive with which it agreed. The character which I first conjectured to have the value of *se*, and afterwards of *me*, really has the value of *ne*.

The inscriptions of Hamath, like the first and third inscriptions of Jerablûs, are records of buildings, the second inscription of Jerablûs is little more than a list of royal or rather high-priestly titles, in which the king "of Eri and Khata" is called "the beloved of the god (Sutekh), the mighty, who is under the protection of the god Sarus, the regent of the earth, and the divine Nine; to whom the god (Sutekh) has given the people of Hittites . . . the powerful (prince), the prophet of the Nine great gods, beloved of the Nine and of . . . , son of the god." The first inscription of Jerablûs states that "the high priest and his god have erected "images" to Sarus- * -erwes and his son." Who the latter were is not mentioned, nor is the name of the son given. Those who have read what I have written formerly on the Hittite inscriptions will notice that I was wrong in supposing that Sarus- * -erwes and his father were the father and grandfather of the Carchemish king to whom the monument belongs.—*Academy*, May 21, 1892.

One of the most curious facts that result from my decipherment of the texts—supposing it to be correct—is the close similarity that exists between the titles assumed by the Hittite princes and those of the Egyptian Pharaohs of the xviii and xix dynasties. The fact has an important bearing on which the monuments of Hamath and Carchemish must be assigned. The similarity extends beyond the titles, the Hittite system of writing presenting in many respects a startling parallelism to that of the Egyptian hieroglyphs. Thus, "word" or "order" is denoted by a head, a phonetic character, and the ideograph

of "speaking," the whole being a fairly exact counterpart of the Egyptian *tep-ro*, an "oral communication." It would seem as if the inventor of the Hittite hieroglyphs had seen those of Egypt, just as Doalu, the inventor of the Sei syllabary, is known to have seen European writing. This likeness between the graphic systems of the Hittites and Egyptians has been a surprise to me, since I had hitherto believed that, as the Hittite hieroglyphs are so purely native in origin, the graphic system to which they belong must also be purely native. —*Academy*, May 21.

ARAMEAN COINS OF CAPPADOCIA.—M. Six, enumerating all the coins bearing the names of Datames, mentions only those of the ordinary type of Sinope, with a Greek inscription. M. Babelon finds coins of Datames in Cilicia as well, and reads this name in the Aramean inscriptions which M. Six interprets *Tarcamos*. The name of Datames is historic, but the reading of M. Six has not come down to us. The coins in question bear a striking likeness to those of Pharnabazus, their types being identical. We know that Datames succeeded Pharnabazus in the command of the Persian armies, their coins then must have been struck under the same circumstances and in the same mints, that is, in the ports of Cilicia where preparations were made for the expedition against Egypt. Later, Datames was charged with subduing the rebellious Sinope, here we have an explanation of the coins of Sinopean type bearing the name of Datames. Why may not this man be the same whom Diodorus designates satrap of Cappadocia?

2. There are two similar drachmas, one in possession of the Cabinet des Medailles, the other in the Waddington collection; they are Cappadocian coins of the type of Sinope, like those of Datames. The Aramean inscription on the back of these coins has been given a variety of interpretations which appear to be equally possible. M. Babelon, after careful study, fixes upon *Abrocomou*, the only reading in which we can recognize an historic personage. Abrocomas was one of the principal lieutenants of Artaxerxes II and was a colleague of Pharnabazus in the Egyptian campaign. If we accept this reading of the drachma's inscription we must infer that Abrocomas became satrap of Cappadocia, he was in all probability successor to Datames, his coins plainly of later date; their weight and their style show that they belong to the older coinage of Sinope and they are no less certainly anterior to those of Arianthes, which they somewhat resemble.

3. Arianthes must have been the immediate successor of Abrocomas, the identity of style, of types and of material in these coins point to this conclusion. M. Six places two governors of Cappadocia between Datames and Arianthes, whose names he finds on certain coins. M.

Babelon shows that the drachma which bears one of these names, is a manifest imitation of the drachmas of Datames; he also points out that the inscription itself is plainly an alteration of the Aramean name of Datames. The other name he proves to be a deformation of *Abrocomas* and states his belief that neither of these supposed governors of Cappadocia ever existed and cites other instances of the imitation of coins and the alteration of inscriptions.—*Revue Numismatique*, III S. tom. 10. II trim., 1892, p. 168.

HITTITE LETTER OF DUSRATTA.—Among the 300 letters from Tell-el-Amarna is one written to Amenophis III by Dusratta, king of Mitani, the region immediately east of the Euphrates. The letter which was written on both sides of a clay tablet in cuneiform characters begins with an introduction of seven lines in Assyrian, but the remaining 605 lines are in the native language of Dusratta.

The content refers to an embassy sent from Egypt to ask for the hand of his daughter and to recognition of his conquests in Phœnicia. The most important parts are those relating to his religion and to the affairs of state. We find that the religion of the Hittites, Armenians and Akkadians was probably the same as well as their language, which was more nearly akin to pure Turkish than to any other branch of Mongol speech. Dusratta was a Minyan and his power seems to have been the chief in Armenia at this time.

From the letter we find that Dusratta was to receive a large portion of Phœnicia and Northern Syria, which he was to rule as a tributary of Amenophis III.

The latter part of the letter refers to the marriage of Yadukhepa, daughter of Dusratta, to the heir of Egypt, with assurances of increased renewal of friendship between the kingdoms.

The letter is especially important because we may obtain from it, in connection with the letter of Laskondam, also written in Hittite, many of the forms of the Hittite language, its grammar and vocabulary or 400 words.

By these it is shown to be clearly a Mongol language, closely related with the Akkadian, though somewhat later.—*Biblia*, Sept., 1892.

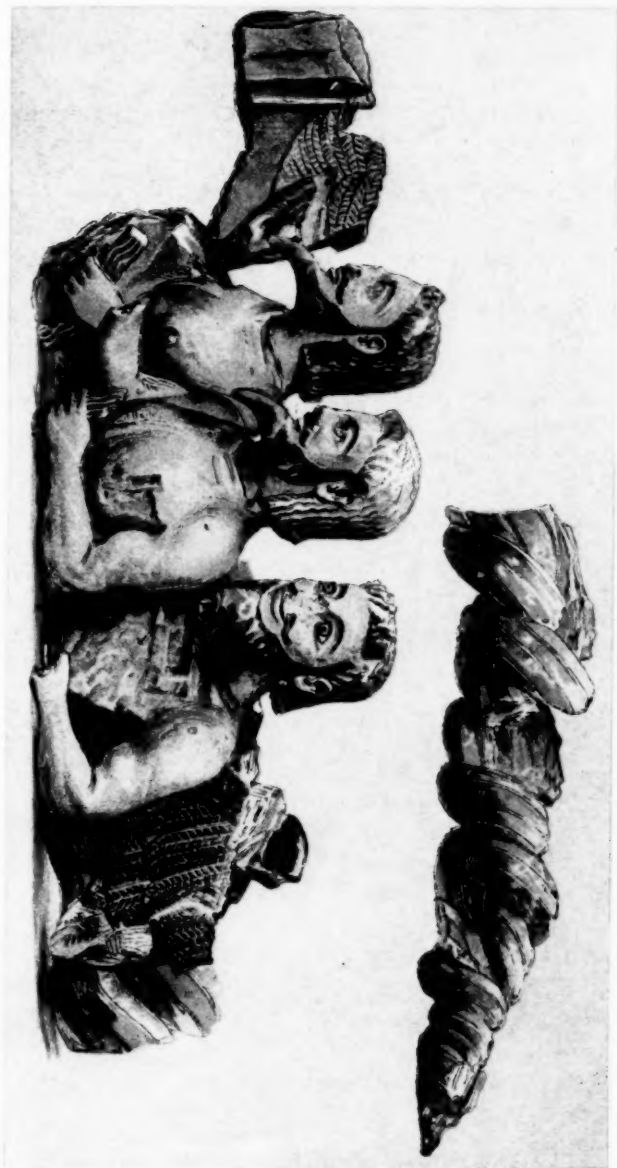
ANGORA.—At a meeting of the *Acad. des Inscr.* M. J. Menant exhibited the rubbing of a Hittite bas-relief found at Angora, which is now at Constantinople. It shows two personages, with an inscription in Hittite characters by the side of each. One of them is the god Sandu, to whom a king (with a name not yet deciphered) is making an offering.

APAMEIA.—CHRISTIAN CHURCH.—Mr. G. Weber has published a study of the early Christian church of Apameia (*Une église antique à Dinair*) which he considers to be the earliest of which any remains exist in Asia; he regards it as having been built under Constantine.—*Revue Arch.*, 1892, 1, p. 131.

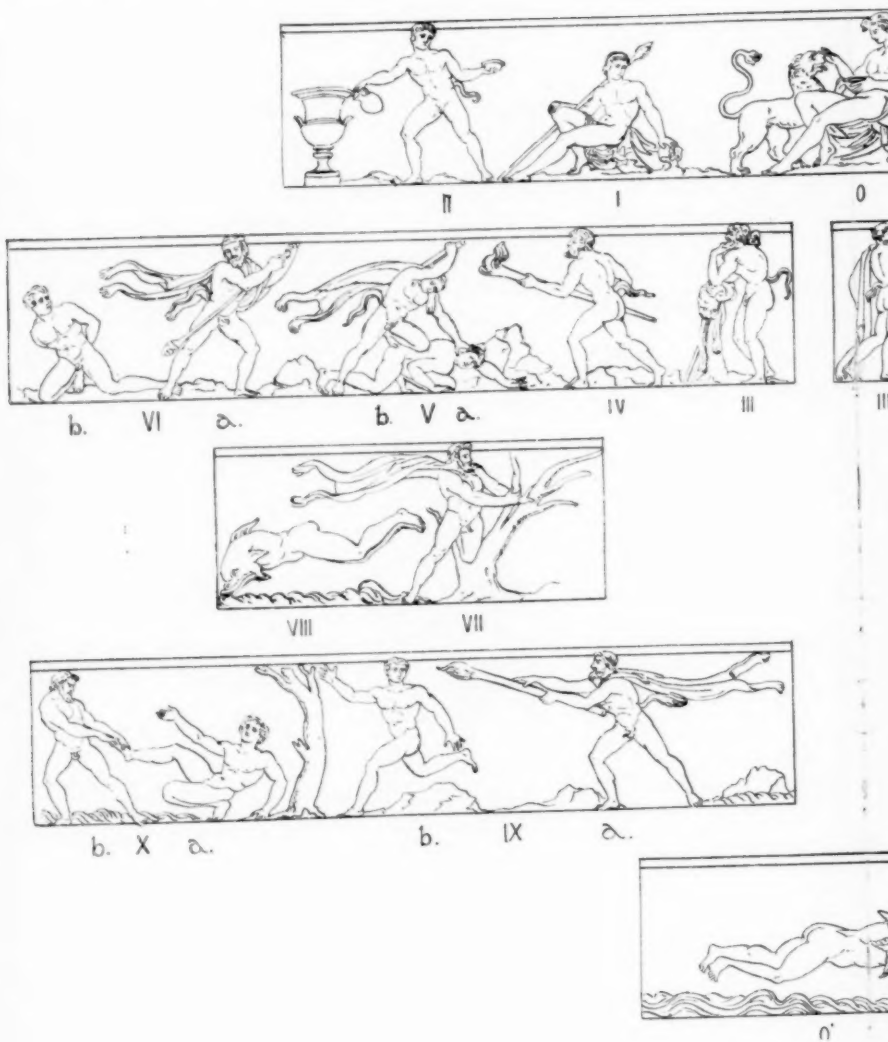
KARIA.—TEMPLE NEAR STRATONIKEIA.—A large temple of Hecate was found last year in Caria, near the ancient Stratonikeia (Eski Hissar). Hamdi Bey, the director of the museum at Constantinople, has been carrying on excavations. He has secured about 160 ft. of the sculptured frieze complete, and has repaired the road to the coast ready for its shipment. A member of the *École Française* has been invited by him to assist him, and the results will be published by the School.—*Athenæum*, Oct. 1.

SEBASTOPOLIS.—M. Leon, the French vice-consul at Siwas, has communicated to the *Acad. des Inscr.* the discovery of a series of Greek inscriptions copied by him, which have enabled him to fix with certainty the site of the ancient city of Sebastopolis. They also furnish important information regarding its constitution.—*Athenæum*, Feb. 27.

A. L. FROTHINGHAM, JR.



THE TYPHON PEDIMENT OF THE ACROPOLIS.



THE FRIEZE OF THE CHORAGIC MONUMENT

VOL. VIII. PLATES II-III



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I'

II'

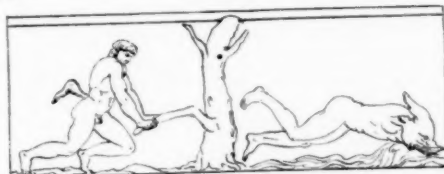


III'

IV'

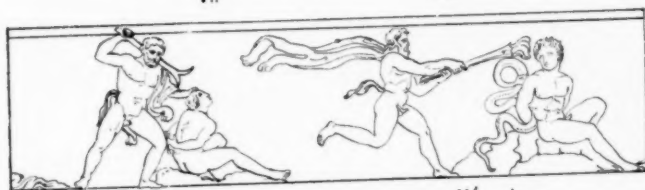
α. V' b.

α. VI' b.



VII'

VIII'



α. IX' b.

α. X' b.



0'

FRAGRIC MONUMENT OF LYSIKRATES.